

FROM LANDFILL TO LIVING LANDSCAPE

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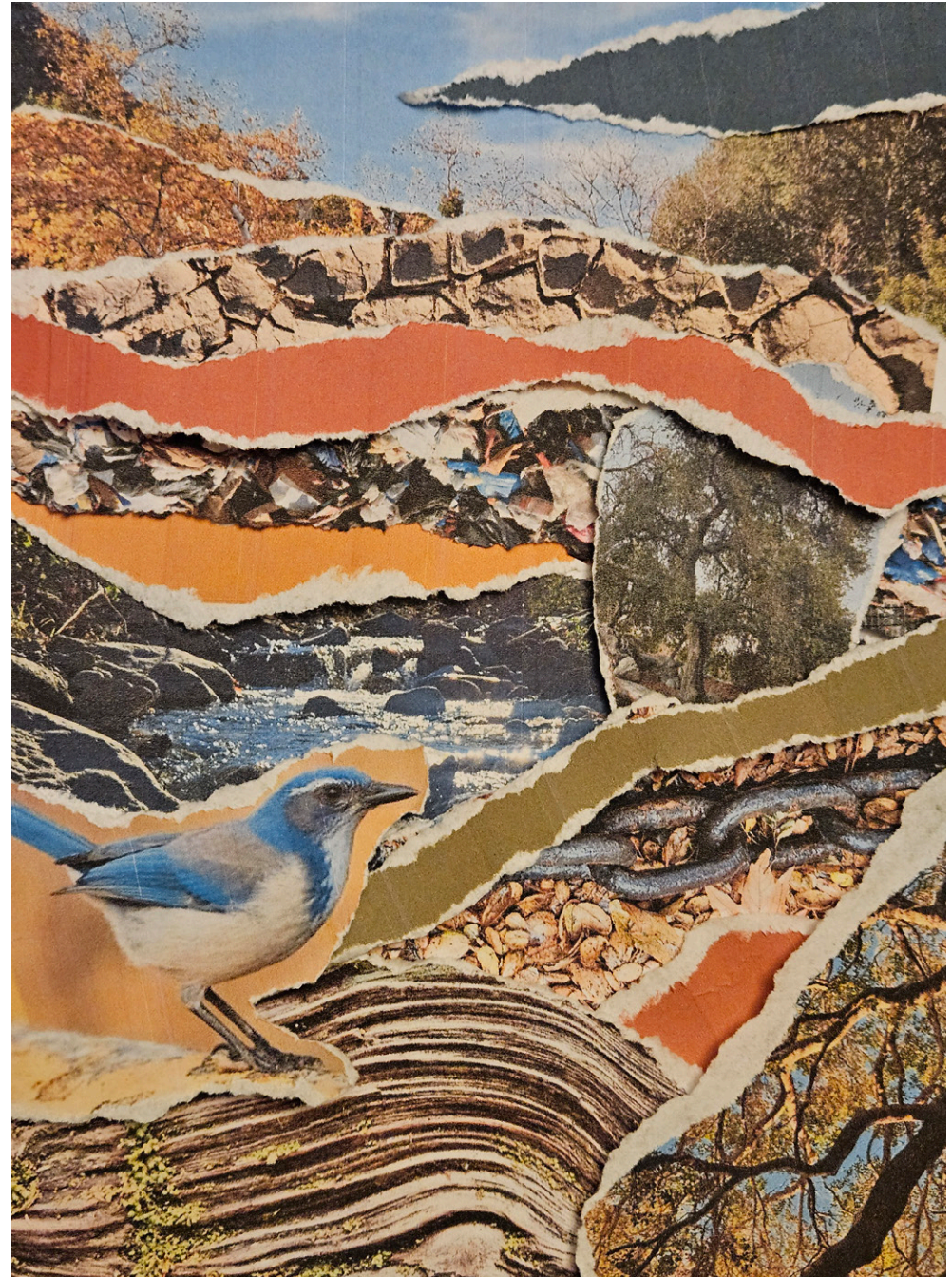
CITATIONS.....72

PROJECT OVERVIEW

PROJECT STATEMENT

HOW CAN WE RESTORE LANDSCAPES AFTER THEY HAVE BEEN DEGRADED?

This park design transforms former landfill areas along Santiago Creek into a living landscape that integrates ecosystem restoration with community recreation.



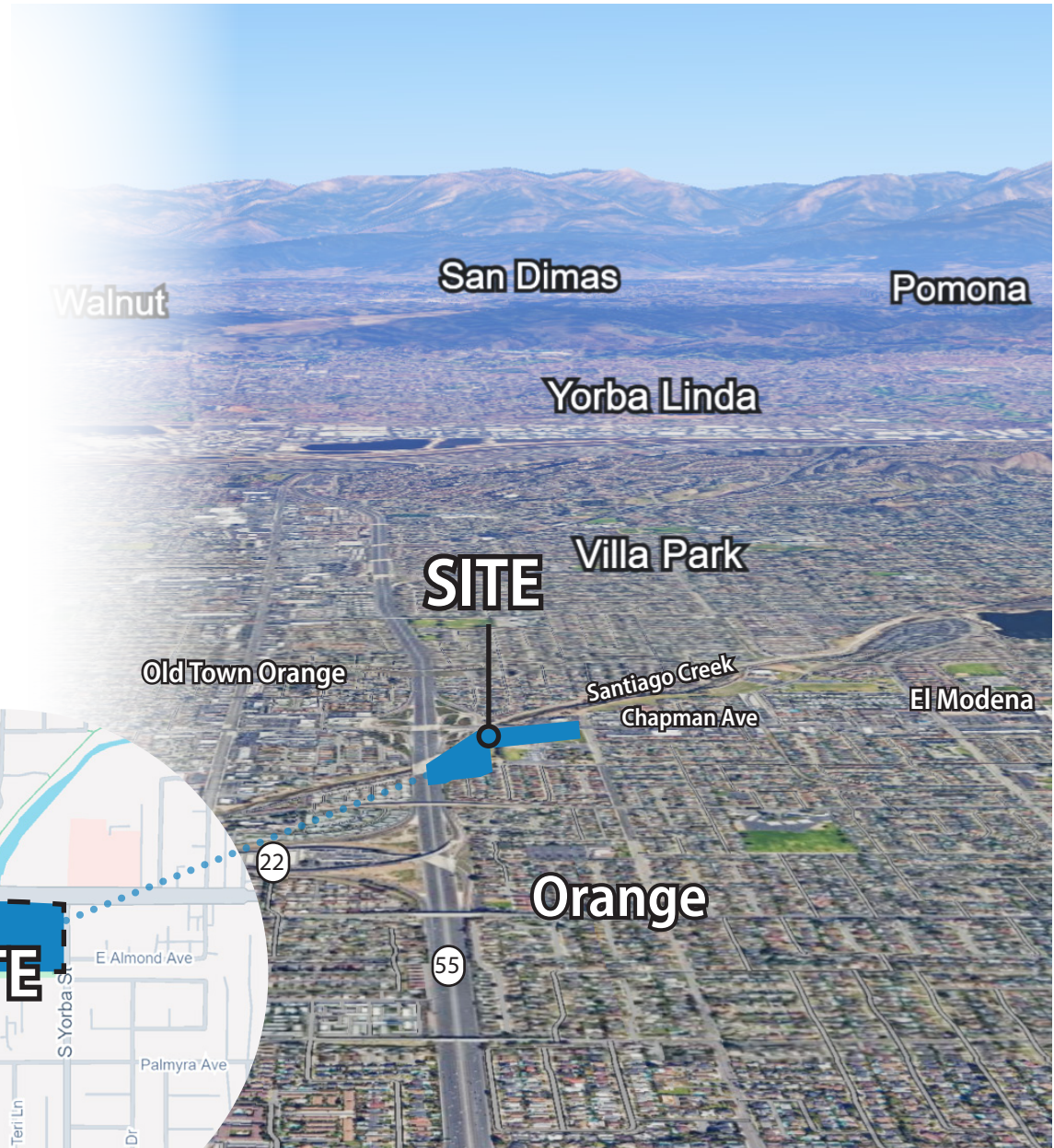
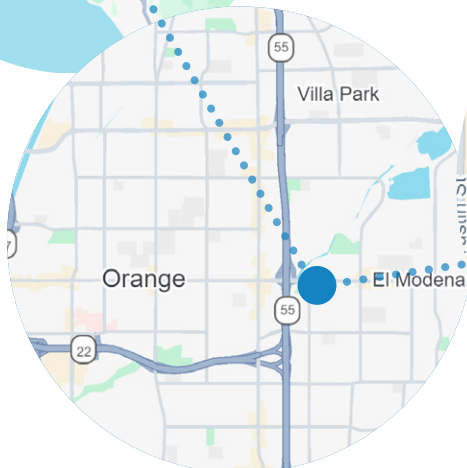
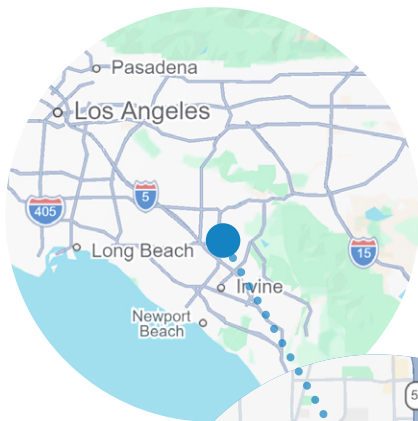
PROJECT LOCATION

The project site is located in **Orange, CA**, just west of the 55 freeway and south of Chapman Ave.

The site is between the El Modena and Old Town Orange Neighborhoods.

Site elevation: 240'

Project Area: 19.5 Acres



PROJECT JUSTIFICATION

Environmental Restoration

- Shrinking habitats have adverse effects on ecosystems and people (Haddad, 2015).
- Biodiversity is in decline due to species extinction driven by climate change, development, and other human impacts (Butchart, 2010).
- Declines in biodiversity decreases ecosystem stability and function and increase invasibility (Cardinale, 2012).
- Habitat restoration was the highest rated priority found in the OC Strategic Plan (OC Parks, 2018)
- Site is heavily degraded with invasive species dominance, limited habitat diversity, and channel erosion due to lack of natural meandering (Applegate, 2020).
- Much of sites habitat value was degraded during it's time as a landfill and continues to have limited value.



Community and Environmental Connection

- Exposure to nature improves cognitive function, brain activity, blood pressure, mental health, physical activity, and sleep (Jimenez, 2021).
- Nature-noticing activities are beneficial for well-being and benefits science and conservation (Pocock, 2023).
- Limited public access to Santiago Creek and lack of opportunities to learn about the local water cycle.
- Nearby schools are lacking in local outdoor nature-based educational spaces.



Equitable Recreation

- Teens living in areas lacking recreational facilities have lower physical activity levels, which can be linked to chronic ailments such as hypertension and diabetes (Babey, 2007).
- Depressive symptoms are higher when parks and facilities are unavailable (Perez, 2015).
- Shortage of recreational spaces in inland Orange County, including City of Orange, under the 3 acres of park space per 1,000 residents (Alexander, 2023).
- Site is accessible via Santiago Creek Trail and Bike Path, addressing OC Parks need for trail network access to parks (OC Parks, 2018).
- Based on input collected by the OC Parks strategic plan, a top priority for the next decade is to purchase/acquire more parks and open space. (OC Parks, 2018).
- Yorba Park currently lacks shade (unsafe to use on hot days) and lacks diverse programming to engage citizens (geared to dog use).
- Site is located near under-resourced neighborhoods and neighborhoods that have lost their community recreational hub: YMCA Community Center and Orange Y BMX track.



POTENTIAL USERS

DEMOGRAPHICS FOR RESIDENCE OF ORANGE, CA

Demographic data for Orange, California, provides insight into the community's age, household, and socioeconomic characteristics. These conditions help identify potential park users and establish community needs and considerations for the design.

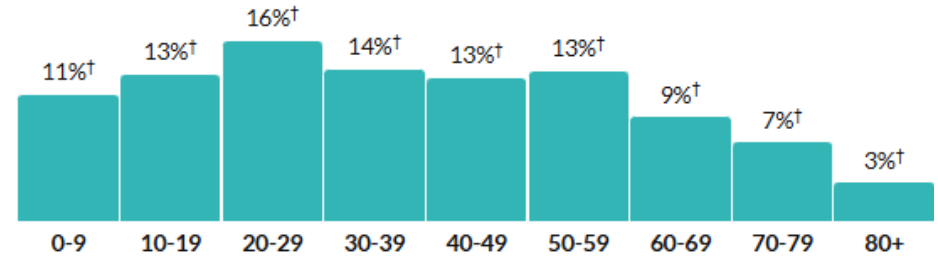
\$46,362
PER CAPITA INCOME

\$111,059
MEDIAN HOUSEHOLD INCOME

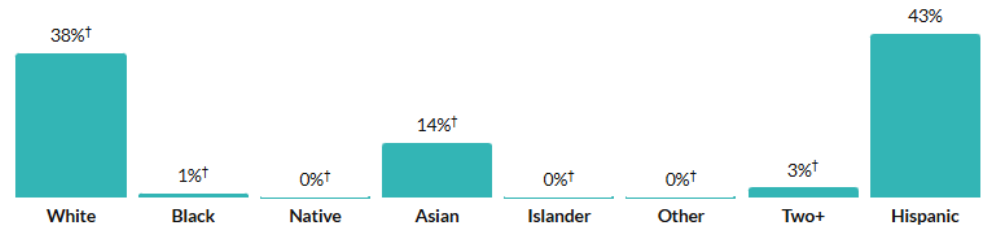
10.4%
PERSONS BELOW POVERTY LINE

36.8
MEDIAN AGE

Population by age range



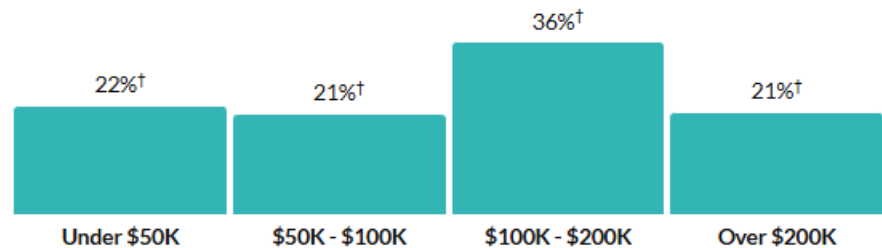
Race & Ethnicity



* Hispanic includes respondents of any race. Other categories are non-Hispanic.

[Show data](#) / [Embed](#)

Household income



POTENTIAL USERS

LIST OF USERS

Local Residents
Joggers
Walkers
Cyclists
Families
Community/Volunteer Groups
Students
School faculty and staff
Children
Teens
Dog walkers
Naturalists
Wildlife

USER PROFILES



The Active Dog Owner

Age: 27 years old
Race/Ethnicity: Non-Hispanic White
Marital Status: Single
Education: Bachelor's Degree
Occupation: Marketing Specialist
Household Income: \$72,000 per year
Needs: After long hours of working in front of screens, this user and pet dog need a safe, scenic place for decompressing, exercising, connecting with nature, socializing to improve their physical and mental wellbeing.
Park Usage: Visits four times a week for **trail running** and the off-leash **dog park**.



The Young Family

Age: 39 and 38 years old
Race/Ethnicity: Bi-cultural (Hispanic and Asian)
Marital Status: Married with two children
Education: Both hold Bachelor's degrees
Occupation: Management and Public School Teacher
Household Income: \$125,000 per year (Combined)
Needs: As a family with neurodivergent children, the family needs a place that allows for full immersion in nature for nervous system regulation and unstructured outdoor play for healthy development, curiosity, and becoming lifelong stewards.
Park Usage: Uses the park for nature walks after preschool and on weekends for family picnics. Children visit the **nature learning center** during the day at school.



The Car-free Couple

Age: 37 and 33 years old
Race/Ethnicity: Hispanic / Latina
Marital Status: Single
Education: Bachelor's Degrees
Occupation: Healthcare Professionals
Household Income: \$98,000 per year
Needs: These users work long hours at the Orange healthcare complex and use the Santiago Creek Trail and Bike Path to commute to work. They need access to a nearby natural space to have a restorative escape, supporting mental health, physical activity, and productivity at work.
Park Usage: Uses the park for access to the Santiago Creek Trail and Bike Path for **commuting** and for **local recreation** such as bike recreation, farmers market, birdwatching, and volunteering.



The California Scrub Jay

Ecology: Year-round resident of Southern California. An intelligent corvid commonly found in oak woodlands, coastal sage scrub and chaparral. Plays an important ecological role of dispersing acorns, helping regenerate native oak woodlands throughout the landscape.
Needs: Structurally diverse vegetation including native oak trees, shrubs, and open areas that provide food, nesting sites, and protective cover. Reduced human activity around nesting areas during breeding season.
Park Usage: Uses the park as **habitat** as their year-round home range for their entire life. Forages for acorns, insects, seeds, berries. Caches acorns in soil. Uses mature trees as lookout perches. Drink and bathe in creek. Shelters in dense vegetation..

POTENTIAL USERS

SPECIAL STATUS WILDLIFE

Current conditions of the site could be greatly improved to serve as valuable wildlife habitat for locally native species, especially special status species that have experienced population decline and need our help the most. Shown are some of the listed species that this design aims to create habitat for.

California Newt

(*Taricha torosa*)

CDFW Species of Special Concern. In Southern California, inhabits coastal scrub, dry chaparral, oak woodlands, and grasslands. Requires surface cover such as rocks, logs, mammal burrows or man-made structures.



Santa Ana Sucker

(*Empidonax trailii extimus*)

Federally listed as Threatened in 2000. State listed as a Species of Special Concern. Endemic to watershed areas from the San Gabriel and San Bernardino Mountains to the Pacific Ocean. Relies on perennial flows with suitable water quality and substrate to support its lifecycle.



Western Spadefoot

(*Spea hammondi*)

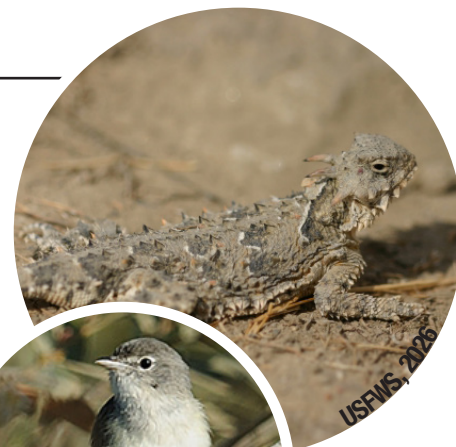
CDFW Species of Special Concern. Inhabits open areas with sandy or gravelly soils within woodlands grasslands, coastal sage scrub, chaparral, washes, lowlands, and river floodplains. Burrows underground most of the year and becomes active during rainfall. Requires shallow, temporary pools formed by heavy winter rains for reproduction.



Coast Horned Lizard

(*Phrynosoma blainvillii*)

CDFW Species of Special Concern. Inhabits riparian areas, annual grasslands with sandy soil, washes, or floodplains.



Least Bell's Vireo

(*Vireo bellii pusillus*)

Federally listed as Endangered in 1986. State listed as Endangered in 1980. Approximately 3,000 breeding pairs remain in the wild. Inhabits riparian ecosystems during summer breeding season and prefers low, dense vegetation such as willow, and baccharis.



Coastal California Gnatcatcher

(*Polioptila californica californica*)

Federally listed as Threatened and a CDFW Species of Special Concern. Approximately 3,000 breeding pairs remain. Inhabits coastal sage scrub.



Western Burrowing Owl

(*Athene cunicularia hypugaea*)

Candidate for state listing as Endangered and a CDFW Species of Special Concern. Temporarily receives the same protections as a state-listed Endangered species. Inhabits arid, open areas such as grasslands. Nests in old small mammal burrows or digs its own in soft soil.



PROJECT GOALS AND OBJECTIVES



RESTORE

Restore Ecosystem and Creek Health

Revitalize the former landfill and Santiago Creek as a thriving ecosystem

Improve local climate, water and air quality

Facilitate ongoing community stewardship

Informed by:
Revegetating Landfills and Waste Containment Areas
An Introduction to Induced Meandering - Bill Zeedyk
Society for Ecological Restoration (SER) International Principles and Standards for the Practice of Ecological Restoration



ENGAGE

Strengthen Community Wellbeing Through Nature and Activity

Facilitate people connecting with nature

Unite people in gathering spaces

Create spaces for physical activity

Informed by:
Statewide Park Development and Community Revitalization Program



THRIVE

Expand Equitable Access to Recreation

Provide safe, inclusive, and accessible recreation for youth and under-resourced populations

Respond to local community needs

Provide a healthy environment for nervous system regulation

Informed by:
Nature Play & Learning Places

PROGRAM ELEMENTS

RESTORE

Revitalize the former landfill and Santiago Creek as a thriving ecosystem

Improve local climate, water and air quality

Facilitate ongoing community stewardship

Creek Access

Size: Varies

Urban Forest

Size: 10 acres

Creek Restoration

Size: Stream bed

Habitat Restoration with Local Native Plants

Size: 15 acres

Capstone 2026 | Landfill to Living Landscape



Ecological Monitoring Stations

Size: 5ft²

Invasive Species Removal and Material Repurpose

Size: Varies

Stewardship Tool Shed

Size: 200 ft²



Phytoremediating Plants in Creek

Size: Stream bed



Native Plant Nursery

Size: 900 ft²



Volunteer Staging Area

Size: 900 ft²

PROGRAM ELEMENTS

ENGAGE

Facilitate people connecting with nature
Unite people in gathering spaces
Create spaces for physical activity



Birding Overlook

Size: 5 x 100 ft²



Multi-use Native Lawn

Size: 1000 ft²



Exercise Stairway

Size: 2 x 50 ft



Amphitheater

Size: 4,000 ft²



Shaded Picnic Area

Size: 10,000 ft²



Nature Play

Size: 7,000 ft²



Flexible Plaza Space

Size: 10,000 ft²



Pump Track

Size: 30,000 ft²



Nature Center

Size: 7,000 ft²

PROGRAM ELEMENTS

THRIVE

Provide safe, inclusive, and accessible recreation for youth and under-resourced populations

Respond to local community needs

Provide a healthy environment for nervous system regulation

Nature Trails

Size: 2,500 ft

Dog Park

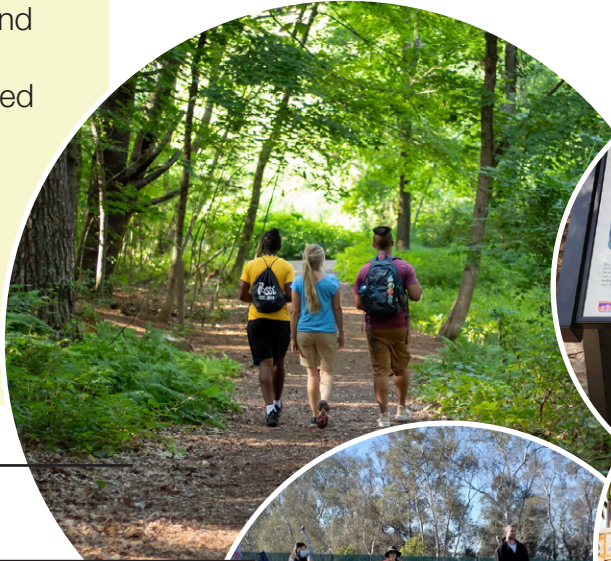
Size: 105,000 ft²

Interactive Water Elements

Size: Varies

Site Access Enhancement

Size: 5 x 100 ft²



Access From Neighboring Schools

Size: 20 ft²

Multi-lingual Ecology and Historic Signage

Size: 20 x 6 ft²

Small Vendor Space

Size: 3,000 ft²



Nature Learning Center with Outdoor Classrooms

Size: 5 x 200 ft²

Nature Immersion Zones

Size: 3 x 100 ft²



RESEARCH AND ANALYSIS

SITE HISTORY

12,000+ years ago

Tongva and Acjachemen Stewardship

The Tongva and Acjachemen people lived integrally with the Santiago Creek watershed.

1769

Portola Expedition

.5 miles north-east of the site, the Portola Expedition camped on the banks of the Santiago creek.



1966

55 Freeway Constructed

Adjacent freeway was constructed.

1946-1960

La Veta and Yorba Landfills

The site operated as the La Veta and Yorba Landfills.

Mid 1970s

YMCA Constructed

YMCA youth center operated for decades as a central hub for community programs, youth development, and fitness.

1976

Orange Y BMX Track Built

Local parents worked with YMCA to convert the La Veta landfill to a BMX track. Was a central hub for BMX racing and recreation.



2016

YMCA and BMX Track Close

The hub for community was forced to close due to lease agreement dispute.



2018

Yorba Park Revitalization

Yorba Park was revitalized with a new dog park and other park improvements.



2021

YMCA Structure Fires

The building underwent three separate incidents of fire resulting in a total loss.



1991

Santiago Creek Greenway Alliance Formed

Volunteer community stewards take care of the Santiago creek and advise decision-makers regarding the creek.

2021

Proposed Islamic Cemetery

Plans for a Islamic cemetery were submitted to Orange and withdrawn over safety concerns regarding damage to the landfill cap.



ORIGINAL LAND STEWARDS

Tongva (Gabrielino)

Indigenous people of the Los Angeles Basin and Southern Channel Islands.

Acjachemen (Juaneño)

Indigenous people of the region that is now Orange County and parts of San Diego County in California.

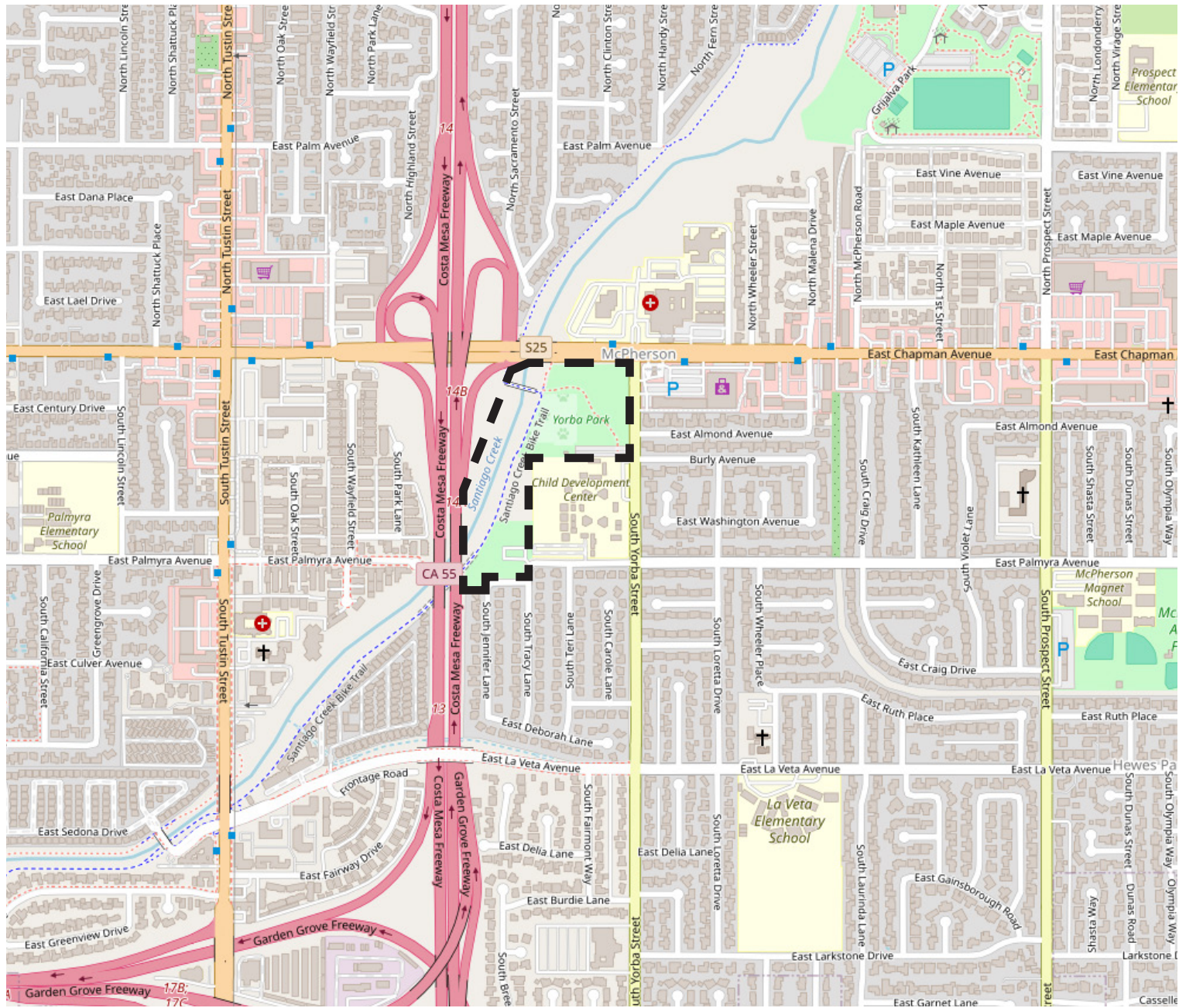
Native Americans inhabited this fertile riparian watershed for many years, relying on the creek's stable, year-round water supply. Santiago Creek flows right through a transitional zone between the traditional territories of these two large groups.

This all changed around the time the Portolá Expedition, led by Gaspar de Portolá of Spain, camped on the banks of Santiago Creek on July 27, 1769, located .5 miles from the project site.



BUILT CONTEXT

- | | |
|--|-------------------|
|  | 55 - Freeway |
|  | Large Streets |
|  | Medium Streets |
|  | Small Streets |
|  | Bike Path |
|  | Recreational Park |
|  | Commercial |
|  | Education |
|  | Residential |
|  | Open Space |
|  | Santiago Creek |
|  | Site Location |



ECOLOGICAL CONTEXT

Plant communities found in the local region that are relevant to the project site are listed below:

RIPARIAN WOODLAND

Riparian woodlands are found along any perennial or ephemeral stream, waterway, or river. This plant community plays a critical role in reducing erosion, stabilizing stream channels, recharging soil groundwater pools and regulating movement of wildfires. Plant species found in this community include Fremont and black cottonwood (*Populus fremontii* and *P. trichocarpa*), western sycamore (*Platanus racemosa*), willows (*Salix* spp.), and mule fat (*Baccharis salicifolia*).

GRASSLANDS

Grasslands were historically found in low-elevation valleys, foothill swales, and coastal plains, and have mostly been replaced by nonnative annual grasses from the Mediterranean Basin. Local grasslands likely consisted of a mixture of perennial bunchgrasses, annual grasses, and broad-leaved herbs, including foothill needlegrass (*Nassella lepida*), purple needlegrass (*Nassella pulchra*), giant needlegrass (*Stipa coronata*), coast goldenfields (*Lasthenia californica*), and California Poppy (*Eschscholzia californica*).

COASTAL SAGE SCRUB

Coastal Sage Scrub (CSS) is uniquely adapted to specific regions of California's Mediterranean climate, with many plants going summer dormant to survive the summer dry conditions. Nearly one hundred plant and animal species associated with CSS are classified as rare, sensitive, threatened, or endangered. Characteristic plant species of CSS include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), Bush sunflower (*Encelia californica*), Black sage (*Salvia mellifera*), and White sage (*Salvia apiana*).

LIVE OAK WOODLAND

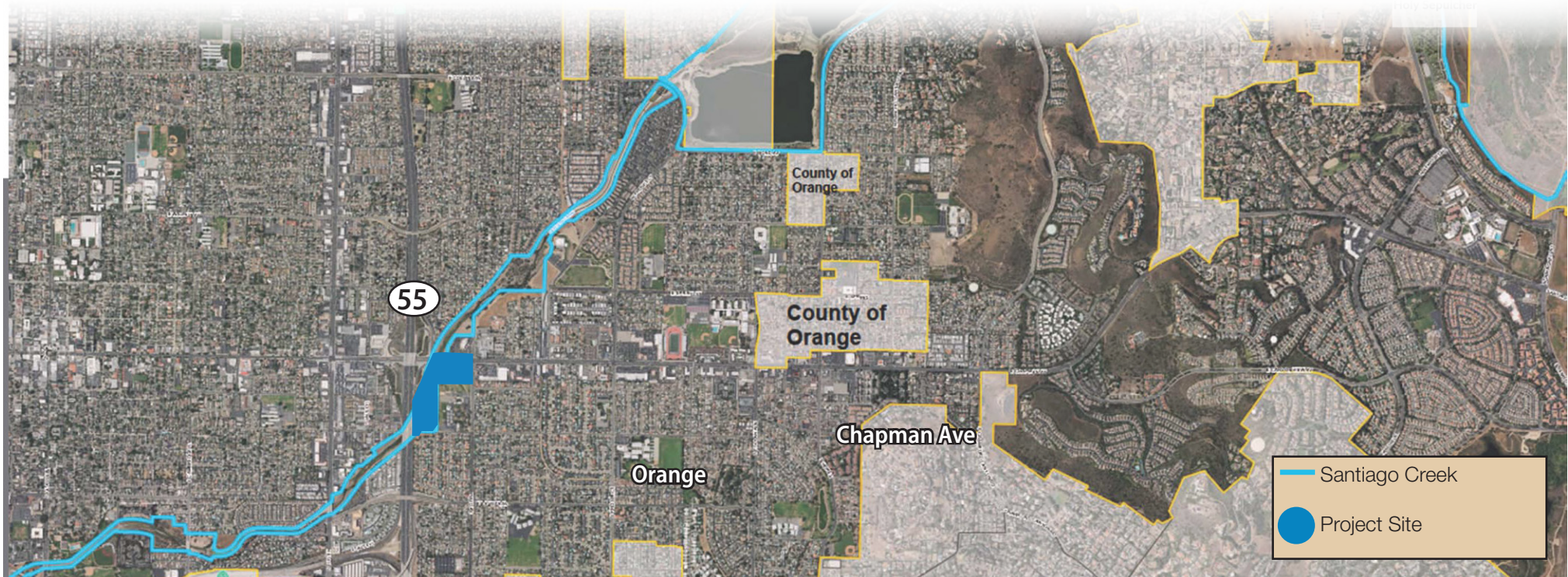
Woodlands dominated by coast live oak (*Quercus agrifolia*) are found on north facing slopes, in shaded canyons, and along stream margins where groundwater is available at depth. Live oak woodlands support well over 300 wildlife species. Common plants of this community include toyon (*Heteromeles arbutifolia*), hollyleaf redberry (*Rhamnus ilicifolia*), California black walnut (*Juglans californica*), and Mexican elderberry (*Sambucus mexicana*).



COMMUNITY STEWARDSHIP

SANTIAGO CREEK GREENWAY ALLIANCE

- Local volunteers dedicated to improving public use of the Santiago Creek since 1991.
- The project location is within the scope of the Santiago Creek Greenway Alliance. Their **scope covers the Santiago Creek** and adjacent public spaces, from the Santa Ana Mountains to the Santa Ana River.
- Programs including **invasive species removal work days, monthly creek clean-ups, and adopt a tree program.**
- Engage the community through outreach, events, and education on-site during volunteer events.



ON-SITE ELEMENTS



Project Area: 19.5 Acres



SANTIAGO CREEK

Current site conditions related to the Santiago Creek are listed below:

Bank Stabilization

- Articulating concrete blocks linked together. Gaps between blocks expose soil, often having native shrubs growing within.
- Permeable solution to erosion control allowing for water to pass through while stabilizing creek banks.
- Doubles as climbable surface.
- Banks without the concrete blocks are severely eroded by the creek.

Invasive Plant Presence

- Many invasive plants present in the creek with the most dominant being Eucalyptus spp.

Bridge

- A foot bridge is located on site to allow the Santiago Creek Trail and Bike Path to pass over the creek.



Unhoused Utilization

- Unhoused people seek shelter in the Santiago Creek and utilize the restroom at Yorba Park

High Use of Santiago Creek Trail and Bike Path

- High traffic on the Santiago Creek Trail and Bike Path.
- Many users including bikers (ebike, road bike, bmx, multipurpose), dog walkers, walkers, and runners.
- The trail bisects the site, connecting to local parks and neighborhoods, and urban areas.

Wildlife Activity

- Much of site was dominated by California ground squirrel and their burrows.
- High bird activity in the riparian trees along the creek.
- Site has locally native plant species occurring along creek, planted and naturally occurring.

CURRENT SITE CONDITIONS



Key Map

NTS



Edge conditions at Palmyra



Former entrance from Palmyra



Coast Live Oak presence on-site



Edge conditions at Palmyra



Soil conditions



Invasive species throughout site



Trail leads to freeway underpass

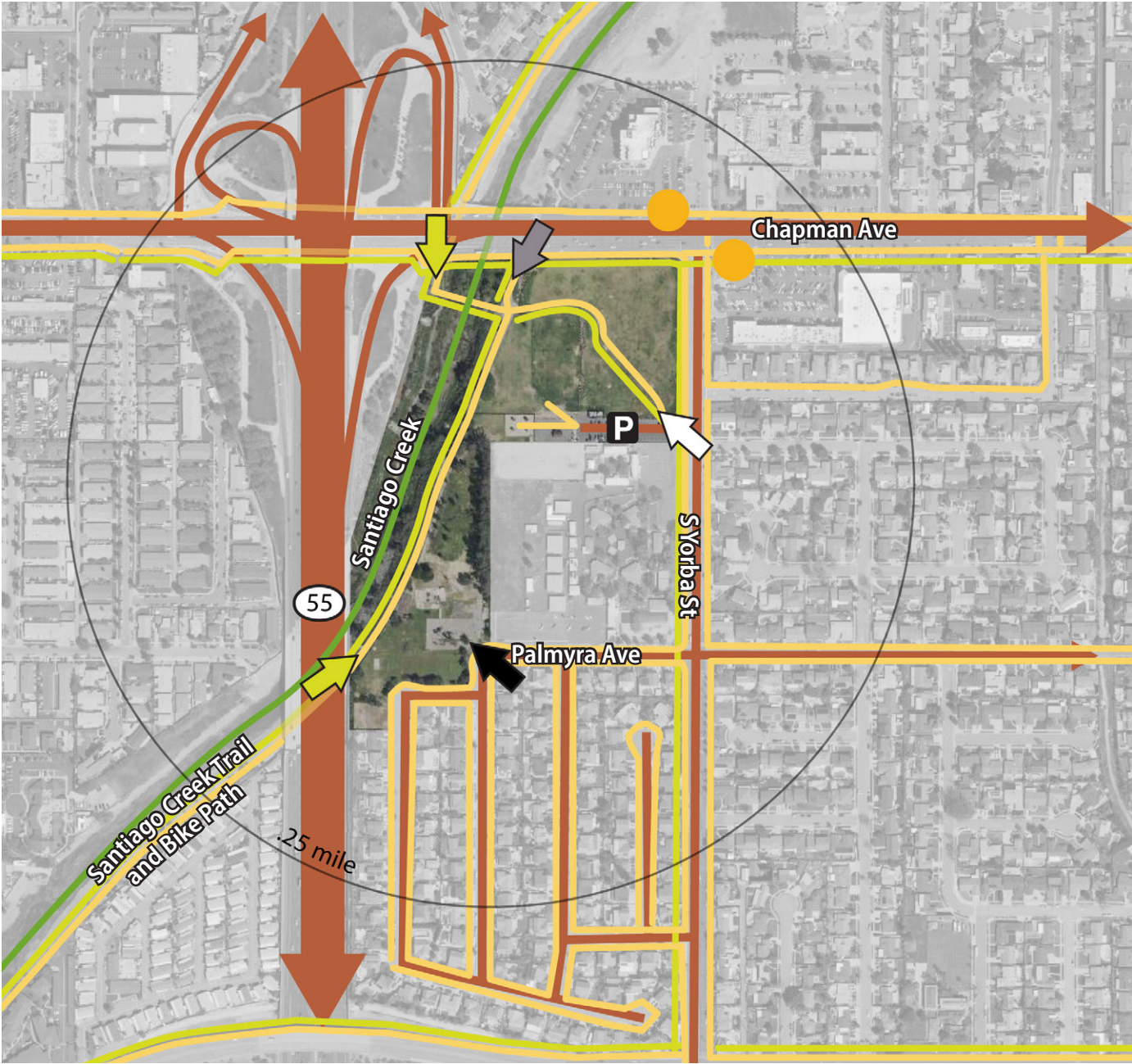
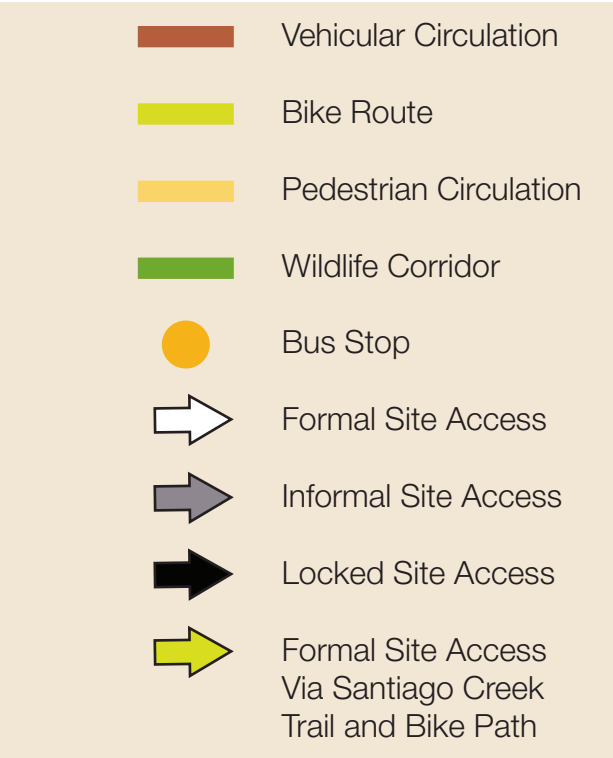


Flattened area with invasive plants where BMX track was



Post-fire conditions of the YMCA Building

CIRCULATION



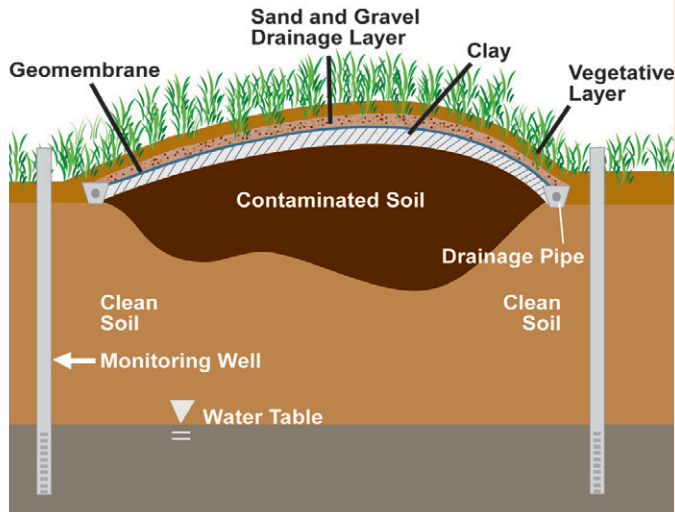
LANDFILL CONDITIONS

Former Yorba Landfill

- Operated: 1957-1960 (Pre-Regulations)
- Condition: High content of organics in municipal trash.
- Infrastructure: Vapor Extraction System replaced in 2018 by County of Orange, Gas Monitoring, Soil, Cap (Du)
- Cap Condition: Regraded in 2018, soil depth is 7 to 11 feet and varies by location, material is clean soil and engineered backfill material (Du)
- Current use: Dog park, open space, restroom, concrete parking lot, decomposed granite path, lawn, trees

Former La Veta Landfill

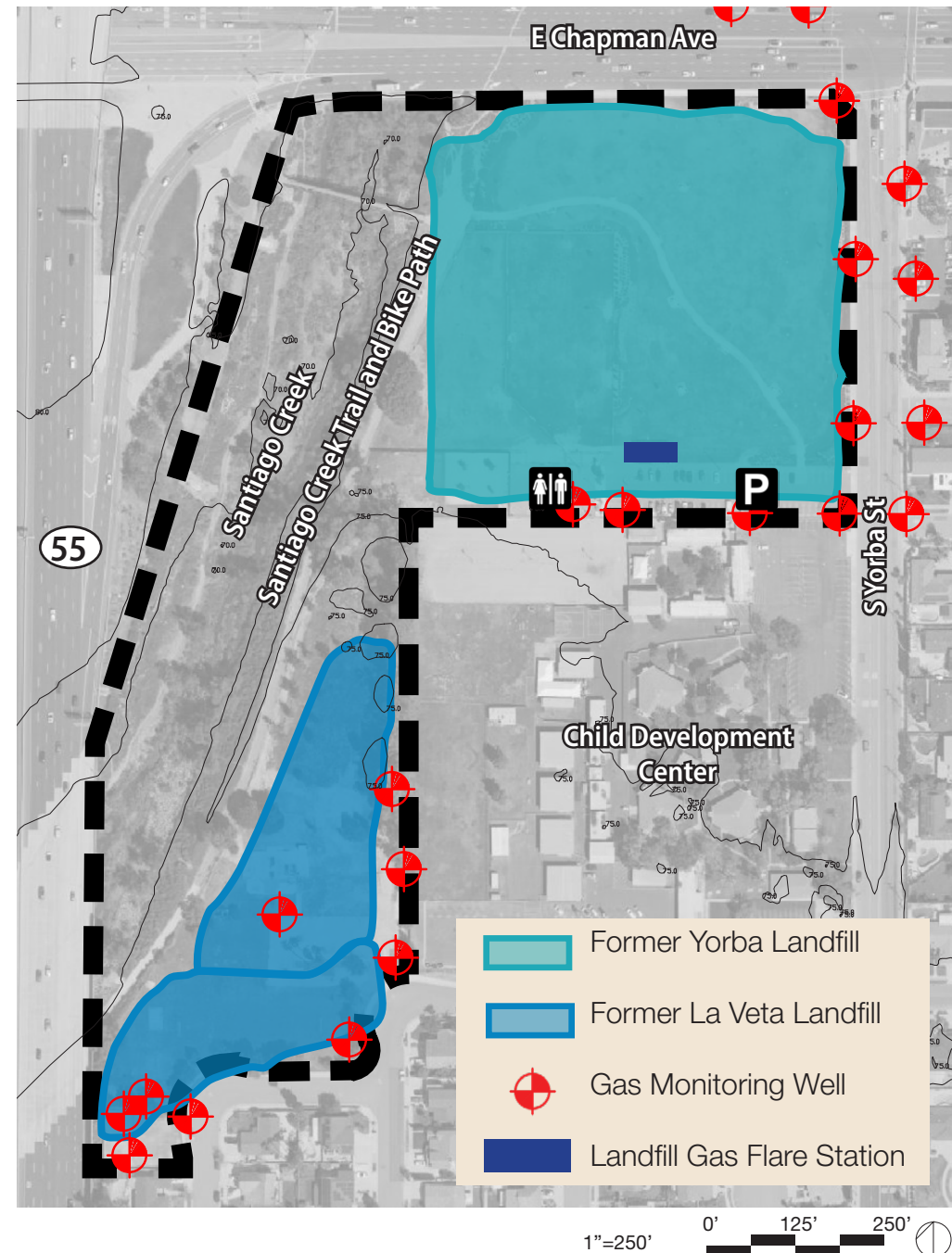
- Operated: 1946-1956 (Pre-Regulations)
- Pre-Landfill Use: Mining
- Condition: Signs of settling in parking lot area. Contents consist mostly of construction debris including concrete, paper, wood, glass, rubber, metal, plastic, brick, and burned debris. Does not contain highly decomposable materials such as green waste. Waste depth is estimated to be 25 feet. Soils beneath the refuse fill were found to consist of about 7 feet of medium dense silty sands overlying dense to very dense clayey gravels extending to 89+ feet (Ninyo & Moore)
- Infrastructure: Gas Monitoring, Soil, Cap
- Cap Condition: Soil depth is greater than 3 feet and varies by location, cap material is soil
- Current use: Fenced off with no site-access, trees, building footing, parking lot
- Former use: YMCA building, parking lot, BMX track.



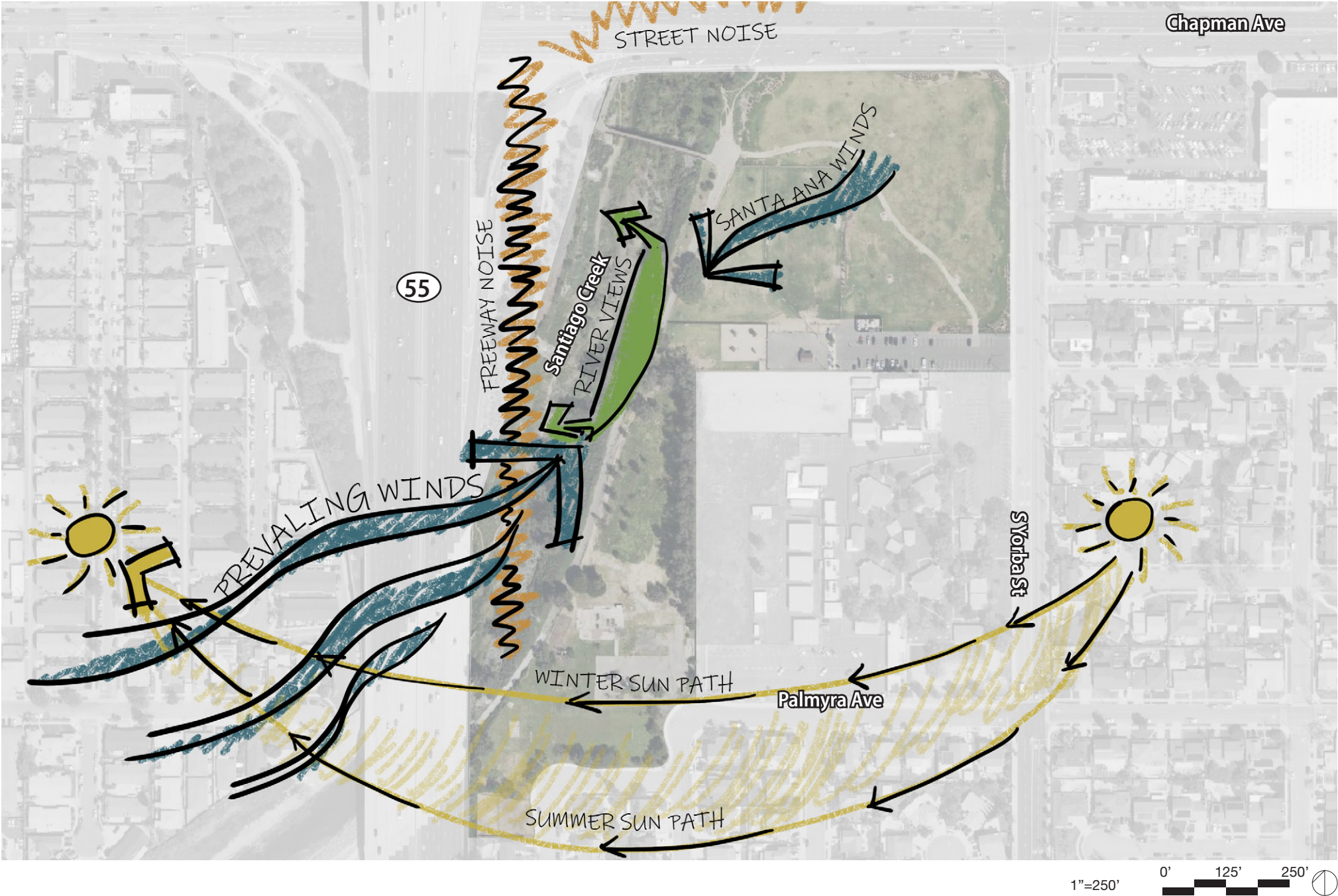
Landfills are typically capped with clay or and topped with soil and vegetation. The gas monitoring wells are adjacent to the landfill areas and the water table is below the landfill area. A generalized cross section of a landfill is shown in figure to the left.

Monitoring wells to be preserved and can be moved if needed.

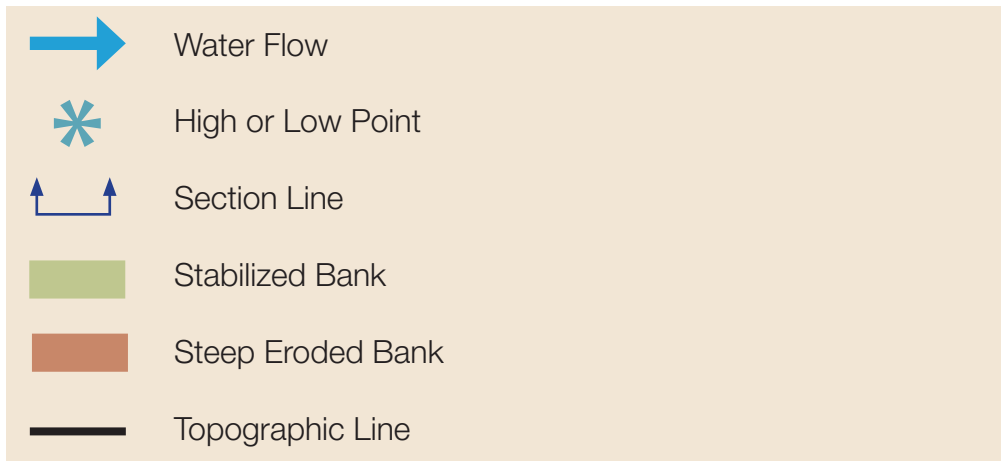
3 feet of soil is enough for most trees to establish. Agronomic soil suitability analysis would be needed to confirm soil health and recommended amendments.



SITE INFLUENCES

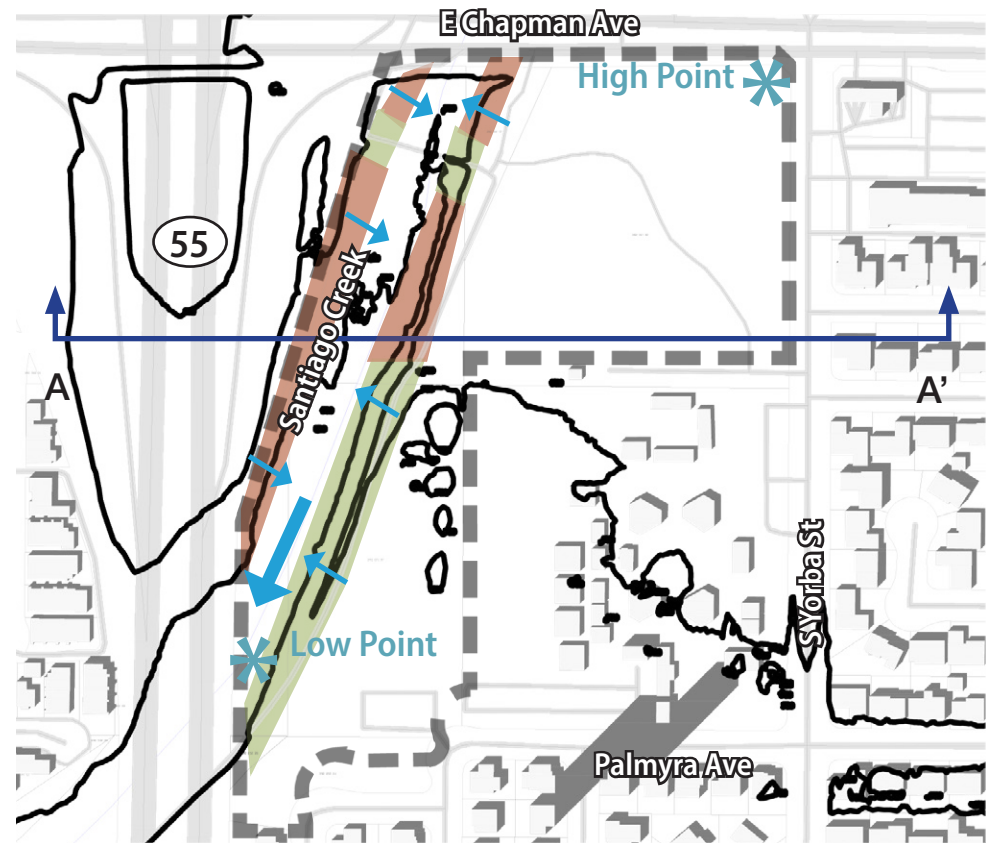


TOPOGRAPHY

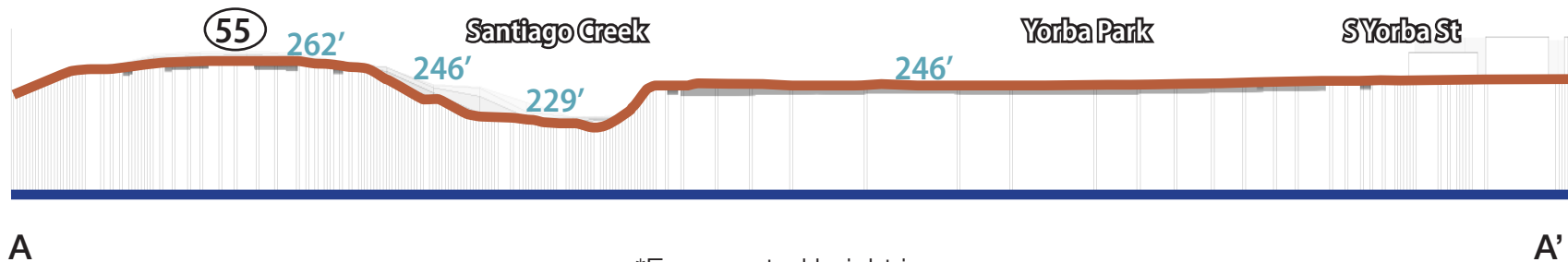


Most of the western half of the site follows the creek with steep topography. Much of these steep slopes are already stabilized with permeable concrete surface however some of the bank is experiencing severe erosion from the creek and needs to be stabilized.

The Santiago Creek Trail and Bike Path is relatively flat and slopes down to pass under the freeway at the western edge of the site. The remainder of the site east of the Santiago Creek Trail and Bike Path is relatively flat. Most of the flat areas have landfill conditions underneath, causing minor changes in topography.

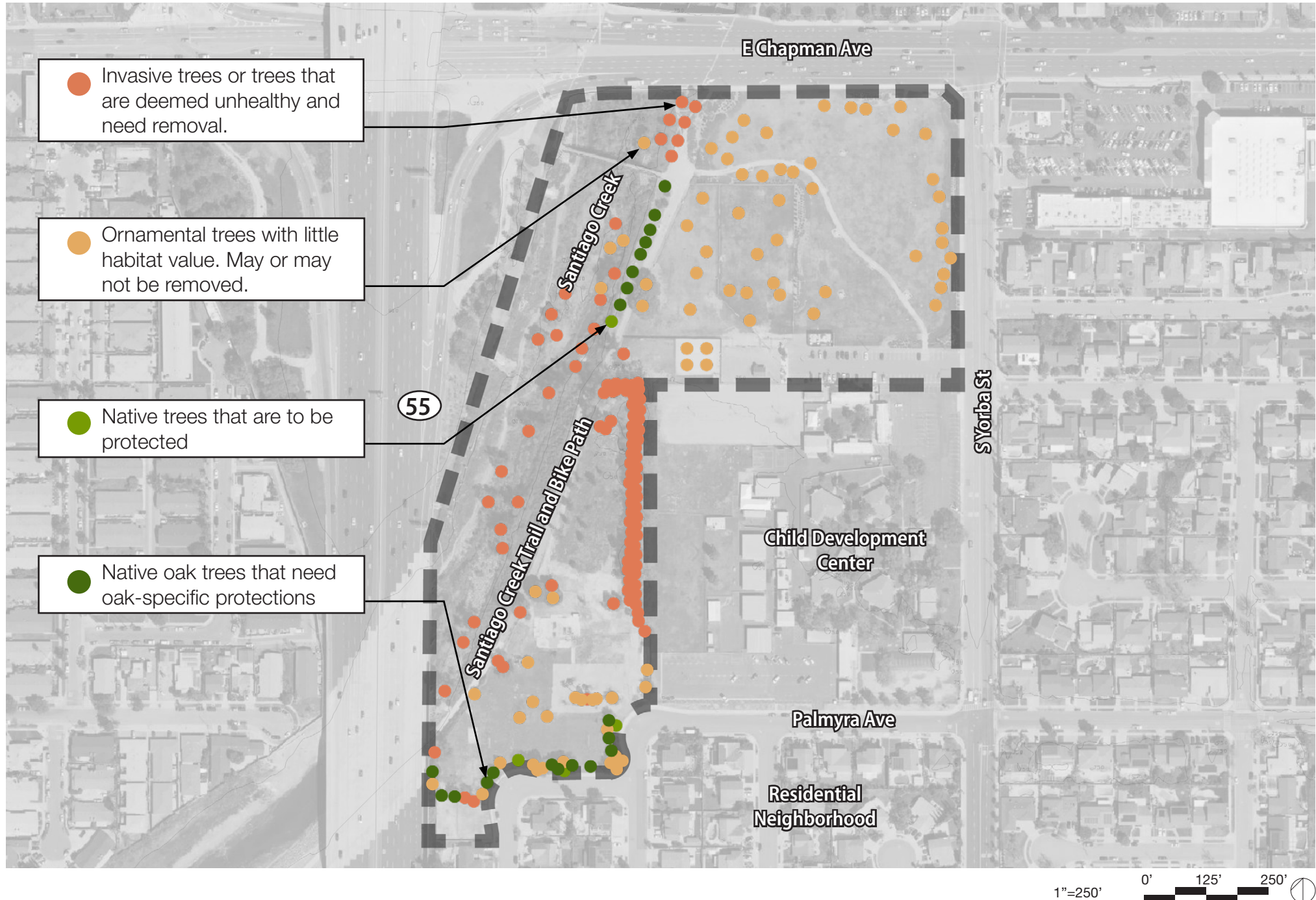


NTS

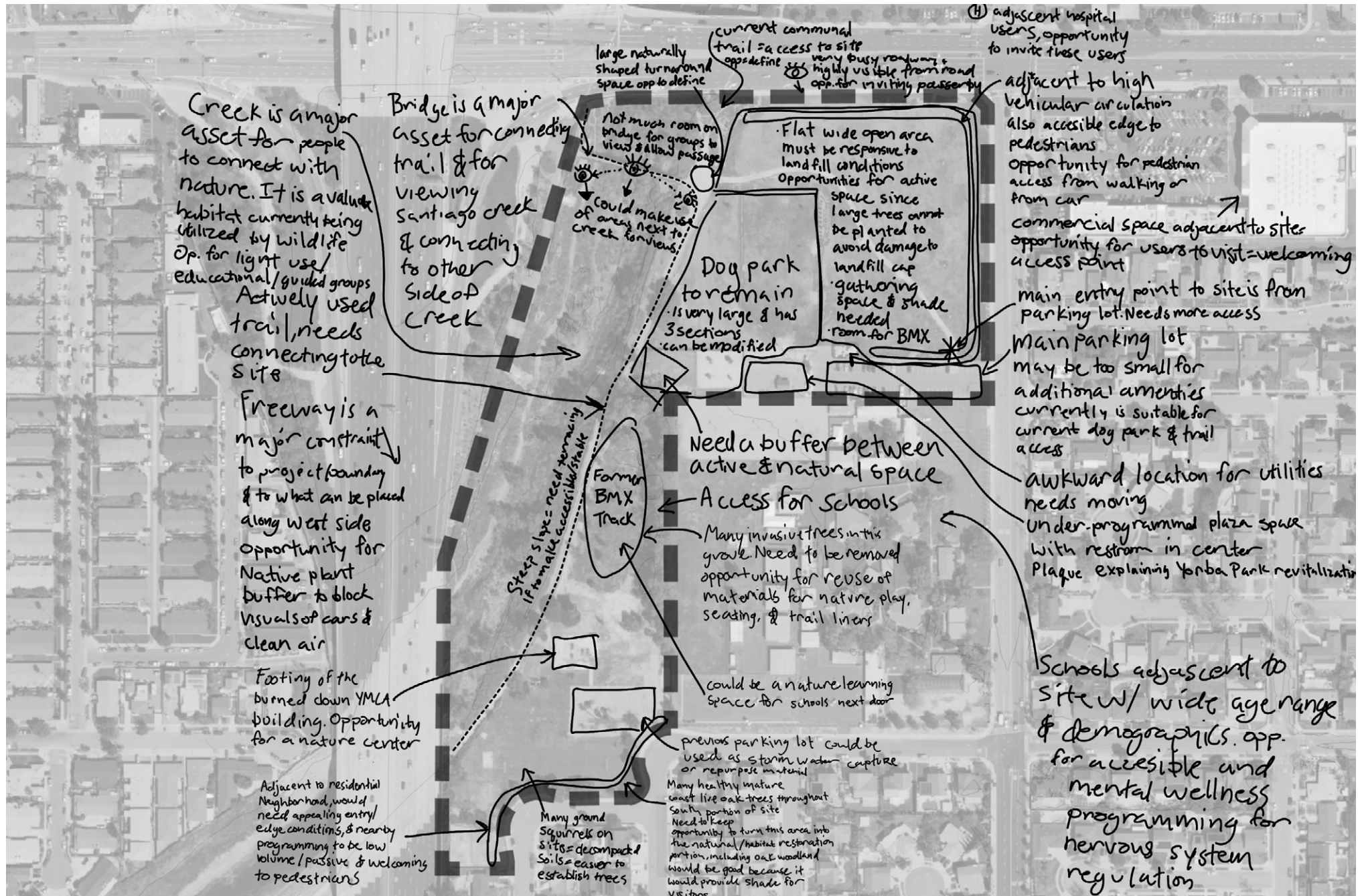


*Exaggerated height in section by 2x

TREE ANALYSIS

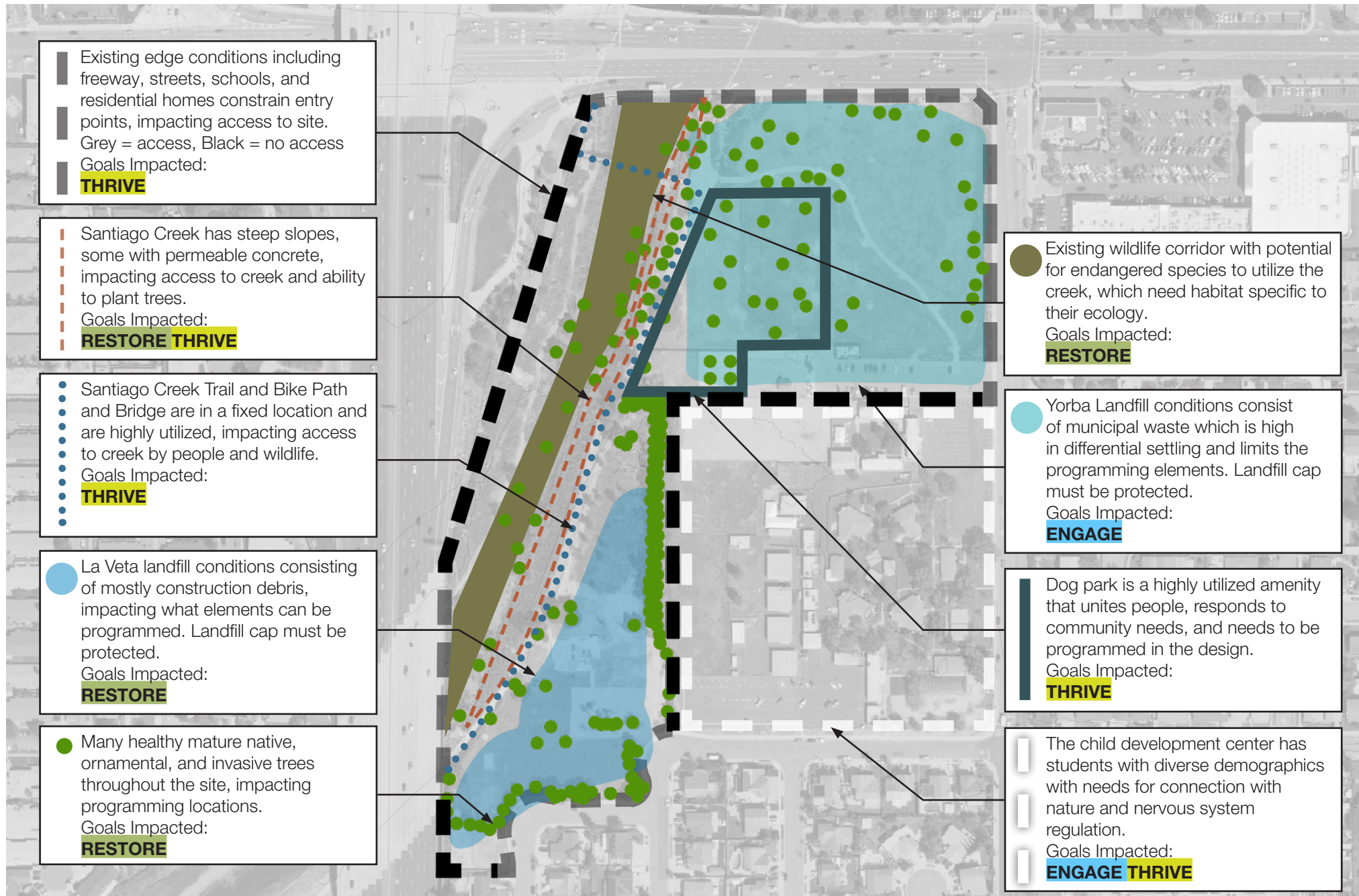


FIELD NOTES



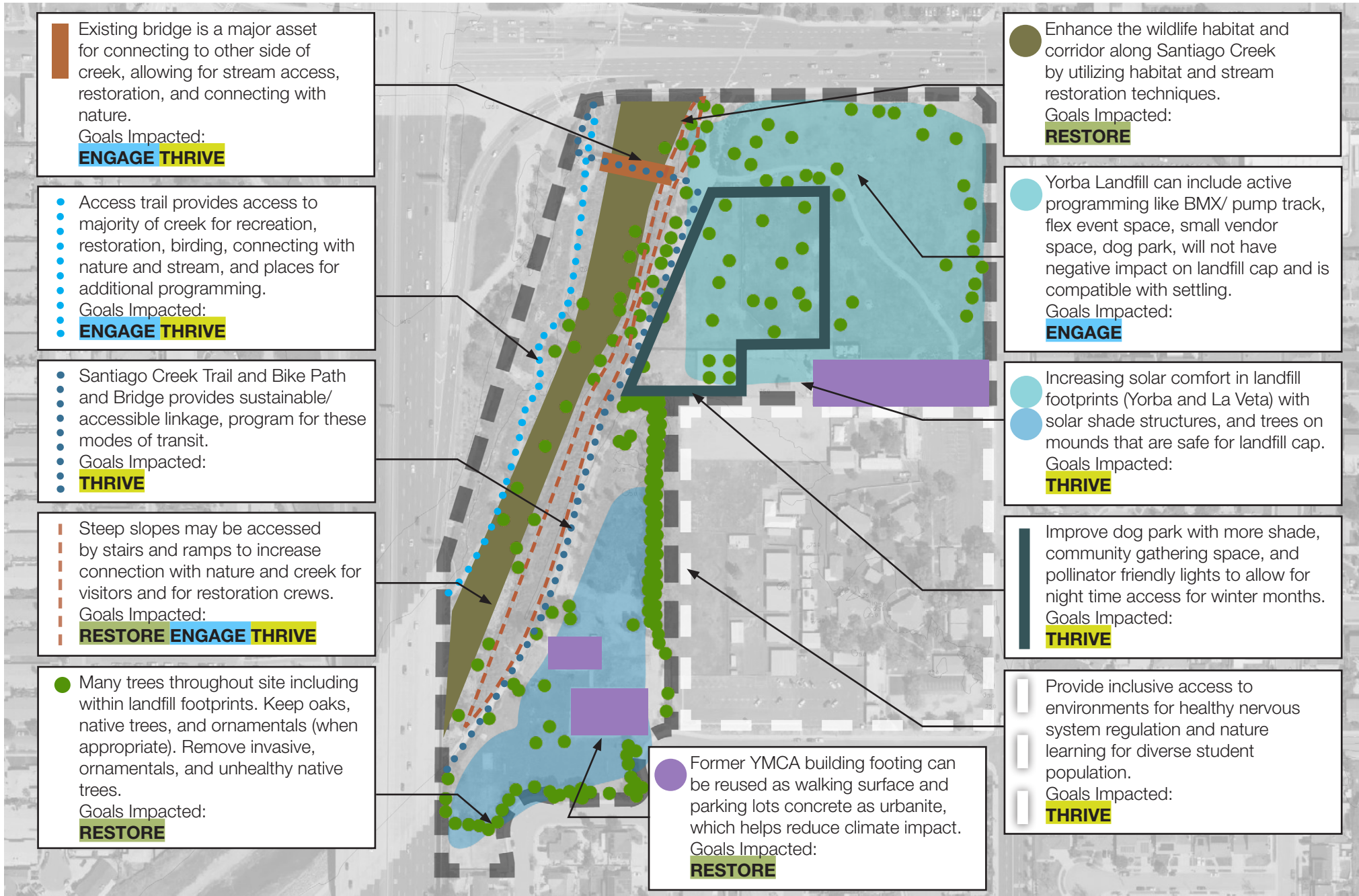
1"=250' 0' 125' 250'

CONSTRAINTS



1"=250' 0' 125' 250'

OPPORTUNITIES



1"=250' 0' 125' 250'

DESIGN PRECEDENTS

South Los Angeles Wetland Park

Overview

Location: 5413 South Avalon Boulevard, Los Angeles, CA 90011; situated in a high-density, historically underserved urban neighborhood of South Los Angeles.

Climate: Hot-summer Mediterranean climate (characterized by warm, dry summers and mild, wet winters).

Size: 9 acres (total parcel size), featuring approximately 4.5 acres of constructed wetlands and 4.5 acres of upland habitat.

Former Use: Industrial brownfield site; previously a **bus and rail maintenance yard** operated by the Los Angeles County Metropolitan Transportation Authority (Metro).

Project Type: Brownfield redevelopment, stormwater treatment, and urban public park creation.

Lead Agency: City of Los Angeles Department of Public Works, Bureau of Engineering.

Lead Designer: Psomas (Engineering/Lead) and Studio-MLA (formerly Mia Lehrer + Associates for Landscape Architecture).

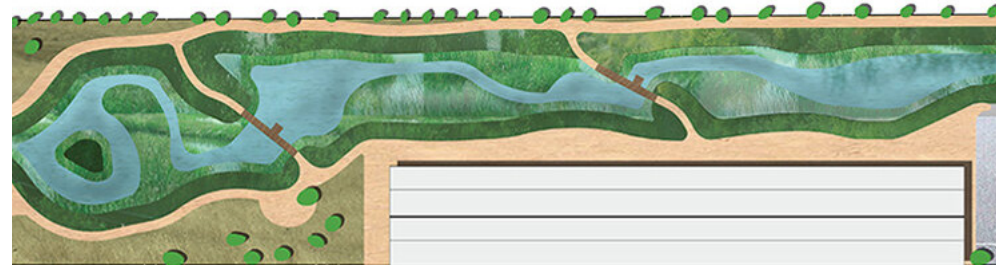
Completed: 2011

Key Takeaways

- This project transformed a 9-acre former industrial bus yard into an urban park centered around a **treatment wetland**.
- The transformation of this park increased local property values. The site utilizes three wetland areas (open water, emergent marsh, and riparian) to **maximize habitat diversity** within a small footprint. It intercepts runoff from a 525-acre watershed to sustain the wetlands.
- With an **outdoor classroom** and **interpretive signage**, the park directly serves **adjacent schools**



Before and after photos of the site.



Wetland system intercepts runoff from 525-acre watershed.



Restored wetlands with native plants that improve water quality.

DESIGN PRECEDENTS

Pizzey Park

Overview

Location: Miami, Gold Coast, Queensland, Australia.

Climate: Humid Subtropical (warm to hot summers with high rainfall; mild, sunny winters).

Size: approximately 150 acres

Former Use: Established in 1949 as a **major landfill site** for the city; ceased waste operations in 1980.

Project Type: Landfill-to-park conversion and development of a regional premier sports and recreation precinct.

Lead Agency: City of Gold Coast

Lead Designer: Collaborations between City of Gold Coast, Convic (for the world-class skate park extension), and World Trail (for the pump track).

Completed: Originally established as a sporting complex in 1969; the major 2021 Master Plan is currently being rolled out in phases through 2032.

Key Takeaways

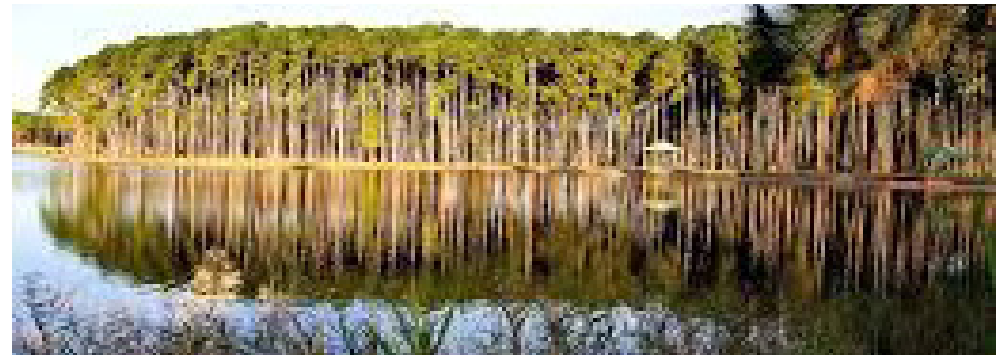
- The park's **skate facility is a destination**, being the largest in Australia (approx. 1.4 acres) and was specifically designed to host Olympic-level training and international street-style competitions.
- The park is home to 25 different sporting clubs and one of Australia's largest asphalt **pump tracks** (over .5 acres of rideable surface).
- The park **reclaimed the former landfill into recreation and restored the contaminated leachate pond area** to create 3.7 acres of new open green space.



Pump track with .5 acres of rideable surface.



Australia's largest skate facility with 1.4 acres of space.



Restored pond and open space

DESIGN PRECEDENTS

Grand Junction Park

Overview

Location: Westfield, Indiana, a northern suburb of Indianapolis.
Climate: Humid Continental (four distinct seasons with cold winters and hot, humid summers).

Size: 6–8 acres.

Former Use: A **flood-prone, underutilized area** featuring a fragmented green space and a channelized, eroded creek.

Project Type: Climate-resilient civic park and stormwater infrastructure.

Lead Agency: City of Westfield.

Lead Designer: DAVID RUBIN Land Collective.

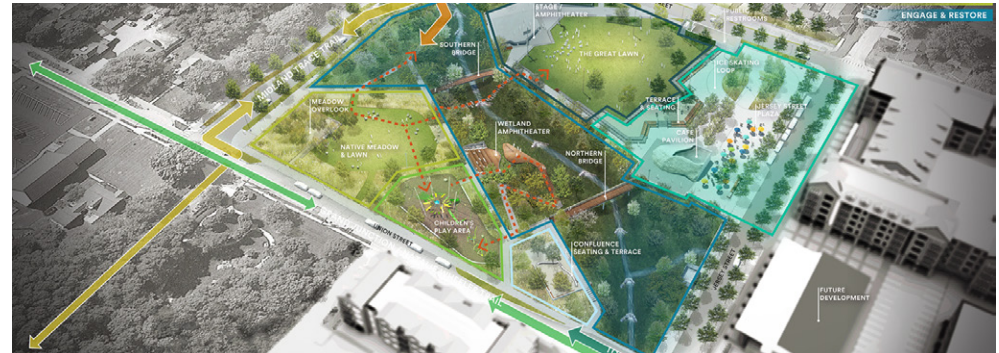
Completed: Substantially completed and opened in late 2021/early 2022.

Key Takeaways

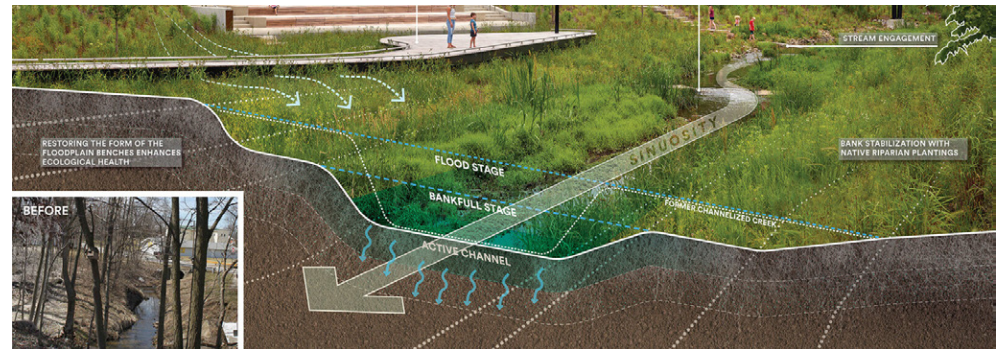
- **Mitigated regional flooding** through the renaturalization and stabilization of Cool Creek.
- Created **access to the creek** with inviting stairway.
- Established the park as a central **hub for community** life.
- Created a town center that **links five regional multi-use trails**.
- Provide **year-round social amenities**, including an amphitheater, ice-skating rink, and café.



Before and after photos of the site.



Created a central hub



Restored Cool Creek

CONCEPTUAL DEVELOPMENT

DESIGN METHODOLOGIES

FORMER LANDFILL PARK DESIGN METHODOLOGY

Design Principle

Protect the landfill containment system while using soil depth, soil quality, and existing site conditions to guide the placement of vegetation, grading, recreation, and structures. Methodology informed by the U.S. EPA's Revegetating Landfills and Waste Containment Areas fact sheet (US EPA, 2006).

1. Identify Landfill & Cover Conditions

Map the known boundaries of the former La Veta and Yorba Landfills. Identify existing cap/cover conditions, monitoring wells, gas vents, and other landfill infrastructure. Protect the landfill cover from excavation, roots, grading, and construction.

2. Establish Planting Zones by Soil Depth

Use 3 ft of suitable soil as the project's minimum design depth for trees. Use grasses, wildflowers, groundcovers, and shallow-rooted vegetation where soil is less than 3 ft. Use the known soil depths as design opportunities: ≥ 3 ft at La Veta and ≥ 7 ft at Yorba. Where greater rooting depth is desired, use berms, hillocks, or added soil rather than excavating into the landfill cover. Select vegetation based on root depth, mature size, soil conditions, and site suitability. Based on municipality input, it is recommended to avoid using deep-rooted trees in the landfill footprint because they could disturb the landfill cap, or create pathways for oxygen or water infiltration into the landfill gas collection system. In these cases, it is recommended to use berms to give extra depth to the tree roots, with the height of the berms at the discretion of the designer. (Du)

3. Evaluate & Improve Soil Conditions

Evaluate soil quality, compaction, drainage, nutrients, and suitability for vegetation. Amend or replace soil where necessary to establish healthy plant communities. Use native vegetation suited to the site to support habitat and reduce long-term maintenance.

4. Design Grading & Stormwater

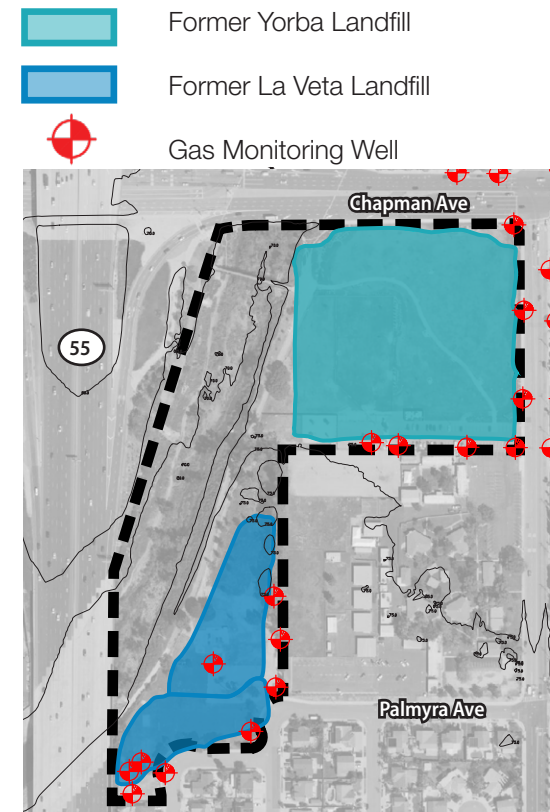
Provide positive drainage and erosion control while maintaining the landfill cover. Use berms and landforms to support planting and manage stormwater without unnecessary excavation. Evaluate potential leachate, groundwater, and landfill-gas constraints before finalizing stormwater infrastructure.

5. Locate Structures Within Landfill Constraints

Evaluate the building, restroom, parking lot, and splash pad based on excavation, structural loading, soil stability, and utility requirements. Avoid deep excavation or foundations where landfill conditions are unsuitable.

6. Maintain Monitoring & Long-Term Site Management

Provide permanent access for monitoring wells and maintenance vehicles. Keep trees, structures, berms, and paving clear of required monitoring infrastructure. Monitor vegetation, erosion, settlement, drainage, and the condition of the landfill cover over time.



DESIGN METHODOLOGIES

NATURE IMMERSION & PLAY DESIGN METHODOLOGY

Design Principle

Create diverse, nature-rich spaces that encourage children to explore, play, discover, and develop meaningful connections with the natural environment. Design principle informed by Nature Play & Learning Places: Creating and Managing Places Where Children Engage with Nature (Nature Explore).

1. Landscape as the Primary Learning Environment

Design the landscape as the primary medium for play and learning, ensuring built elements support the experience without visually dominating it. Use vegetation, landforms, water, and natural materials to create spaces where children interact directly with ecological processes.

2. Conceal & Minimize Built Elements

Reduce the visual prominence of structures, signage, and conventional play equipment to encourage children to focus their attention entirely on exploring the landscape. Use topography, vegetation, spatial sequencing, and material choices to visually integrate or screen built infrastructure.

3. Design for Child-Directed Exploration

Create open-ended environments that allow children to determine how they interact with the space based on their own curiosity. Provide spaces that support climbing, collecting, observing, hiding, balancing, imagining, building, and quiet exploration.

4. Incorporate Loose Materials

Provide diverse natural materials that offer children flexible, open-ended opportunities to invent their own play experiences from movable landscape elements. Incorporate logs, stones, branches, sand, water, leaves, seed pods, and other natural materials where appropriate.

5. Create Multi-Sensory Nature Immersion Experiences

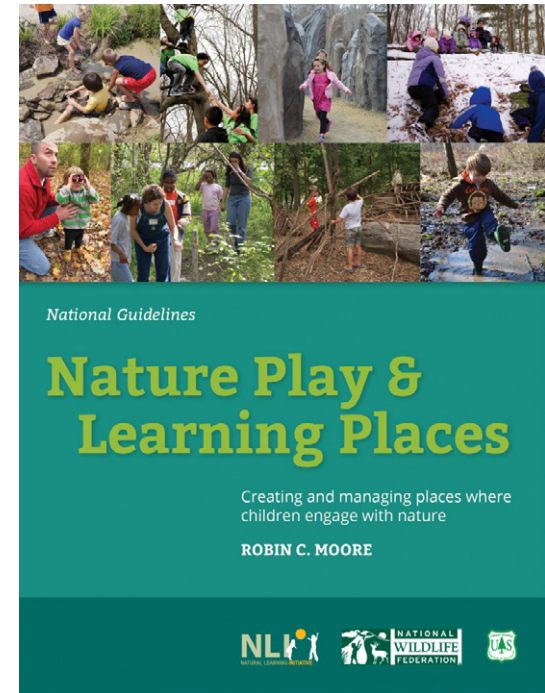
Engage children's senses through direct interaction with natural systems to foster deep, fully immersed experiential learning. Design opportunities to experience natural textures, moving water, birdsong, pollinators, seasonal changes, wind, and plant fragrances.

6. Design for Ecological Discovery

Make active ecological processes visible and accessible so that children can learn firsthand by observing living systems. Incorporate habitat gardens, wildlife corridors, seasonal vegetation, creek processes, pollinator habitats, decomposition, and water systems.

7. Provide Graduated Challenge & Risk

Provide opportunities for children to safely encounter manageable physical challenges that build confidence and motor skills. Incorporate varied terrain, stepping elements, climbing opportunities, uneven surfaces, water, and varied elevation changes.



DESIGN METHODOLOGIES

STREAM RESTORATION METHODOLOGY

Design Principle

Design stream restoration projects by using strategically placed, low-tech structures that harness the natural energy of water and sediment to let the stream dynamically rebuild its own stable channel over time. Design Methodology is based on An Introduction to Induced Meandering by Bill Zeedyk (Zeedyk).

1. Read the Existing Landscape

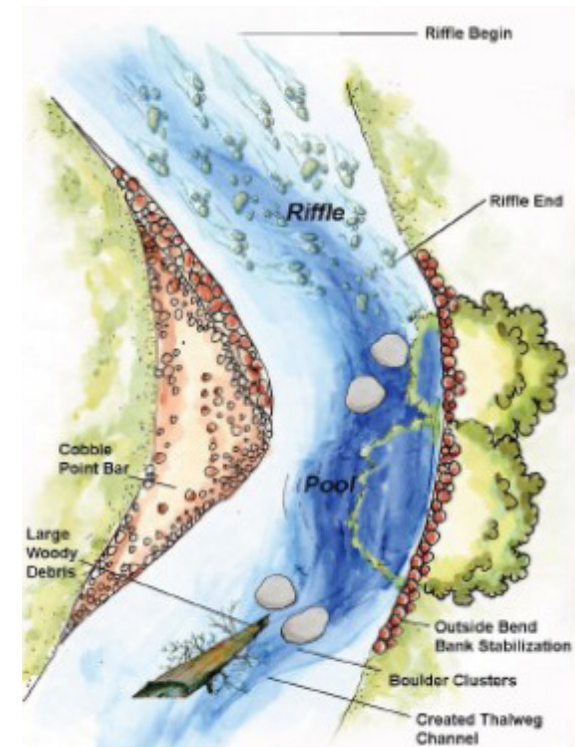
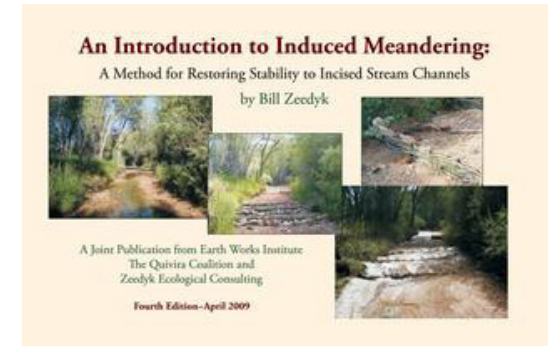
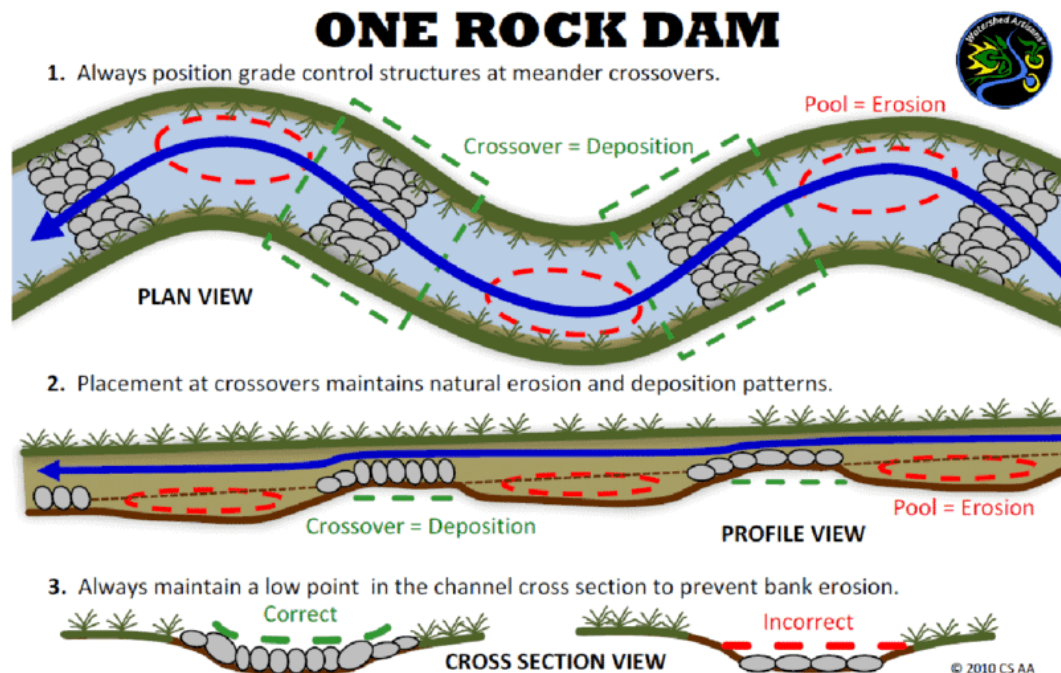
Understand current water movement, channel evolution, and active erosion or deposition patterns before introducing any intervention. Map channel incision, existing meanders, sediment dynamics, and current floodplain-vegetation relationships across the site.

2. Identify a Reference Condition

Use a stable, functioning local reach to model the appropriate channel form and ecological targets for the restoration site. Study stable sections of Santiago Creek to compare and establish ideal targets for width, depth, sinuosity, and pool-riffle spacing.

3. Restore Meander & Channel Complexity

Encourage natural channel meandering, floodplain development, and energy dissipation by allowing flowing water to do the primary restorative work. Install low-tech flow-deflection structures, one-rock dams, baffles, and wicker weirs to slow flows, catch sediment, and induce complexity.



DESIGN METHODOLOGIES

HABITAT RESTORATION METHODOLOGY

Design Principle:

Design the project's living systems by utilizing local reference ecosystems to reconstruct native plant communities and recover dynamic ecological functions. Establish a functional framework that guides a degraded landscape back to a healthy self-sustaining state. The methodology is informed by the Society for Ecological Restoration (SER) International Principles and Standards for the Practice of Ecological Restoration, 3rd Edition (2026) (Gann).

1. Read the Ecology

Understand the existing system before defining the landscape. Analyze site soils, hydrology, topography, vegetation history, and wildlife use.

2. Identify Reference Ecosystems

Let functioning local ecosystems inform the design models. Research historic vegetation, remnant communities, and nearby intact ecosystems.

3. Define Restoration Targets

Design for deep ecological function, not just visual resemblance. Establish goals for species composition, structural diversity, and hydrologic relationships.

4. Reconstruct Native Plant Communities

Use native plant communities as the primary landscape palette. Plant local riparian, wetland, oak woodland, scrub, and grassland species.

5. Design for Habitat Structure

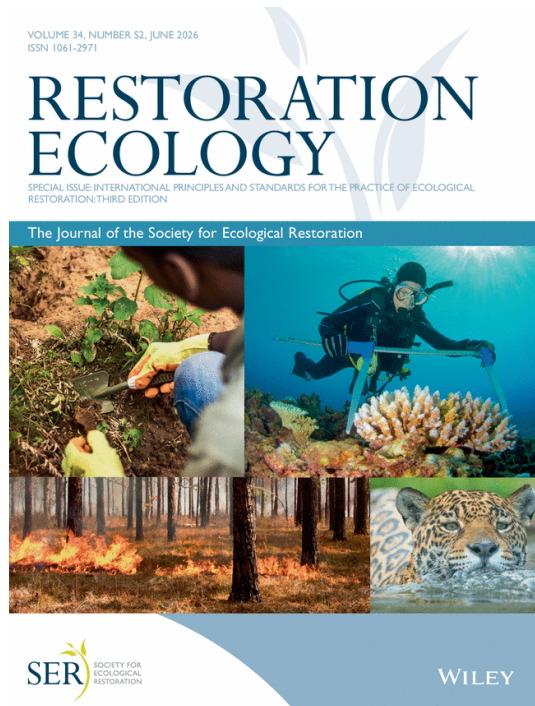
Build complex wildlife habitat rather than standard planting beds. Layer canopy, subcanopy, shrub, herbaceous, and ground vegetation.

6. Restore Ecological Function

Plant for living ecological relationships instead of simple aesthetics. Choose vegetation to support food webs, pollinators, shelter, and soil stabilization.

7. Monitor & Adapt

Use field data to guide long-term adaptive maintenance. Track vegetation health, wildlife returns, invasive species, and water movement.



DESIGN METHODOLOGIES

COMMUNITY ACTIVATION AND EQUITABLE ACCESS METHODOLOGY

Design Principle

Design the park as an active civic resource by directly converting documented community access gaps into spaces that seamlessly integrate human recreation with ecological stewardship. This community-driven programming methodology is based on California State Parks' Parks for All Californians: Community-Based Planning Guide and Statewide Park Development and Community Revitalization Program (SPP) and utilizes the countywide stakeholder inputs and survey data in the OC Parks Strategic Plan (OC Parks).

1. Understand Community Needs and Access Gaps

Utilize regional data like the OC Parks Strategic Plan survey of 4,607 respondents to ensure the park program is grounded in authentic, documented community knowledge. Review countywide stakeholder findings, map regional recreation priorities, and incorporate site-specific insights from local community members. Compare documented community desires with existing spatial conditions to directly solve localized park deficiencies rather than adding arbitrary amenities. Map nearby parks, evaluate active transportation connections, and identify physical barriers preventing neighboring communities from accessing the site.

3. Translate Needs into Program

Convert raw community input and high-priority needs into tangible, site-specific spatial programs and functional landscape features. Transform demands for trails, green space, and nature immersion into a connected bike network, accessible open spaces, and creek restoration.

4. Design for Diverse Users

Ensures the design supports a wide multi-generational matrix of ages, abilities, physical interests, and cultural backgrounds. Program specific site zones tailored simultaneously to children, seniors, active recreation users, students, and people seeking quiet reflection.

5. Create Safe & Accessible Connections

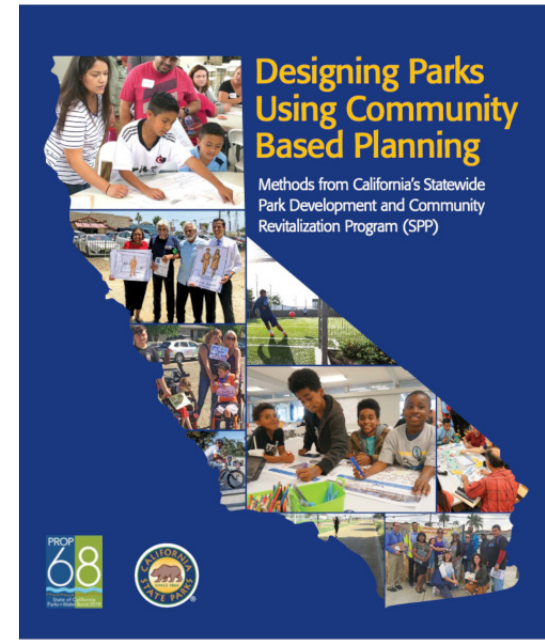
Create equitable design with safe, multi-modal park access established long before a visitor reaches the physical site boundary. Implement continuous pedestrian paths, safe street crossings, clear wayfinding signage, universal-access amenities, and shaded rest areas along entry routes.

6. Design for Activation

Structure the landscape with dynamic programming nodes that invite everyday individual use alongside organized group activities. Integrate outdoor classrooms, nature play zones, picnic areas, flexible event lawns, and measured walking loops to encourage extended visits.

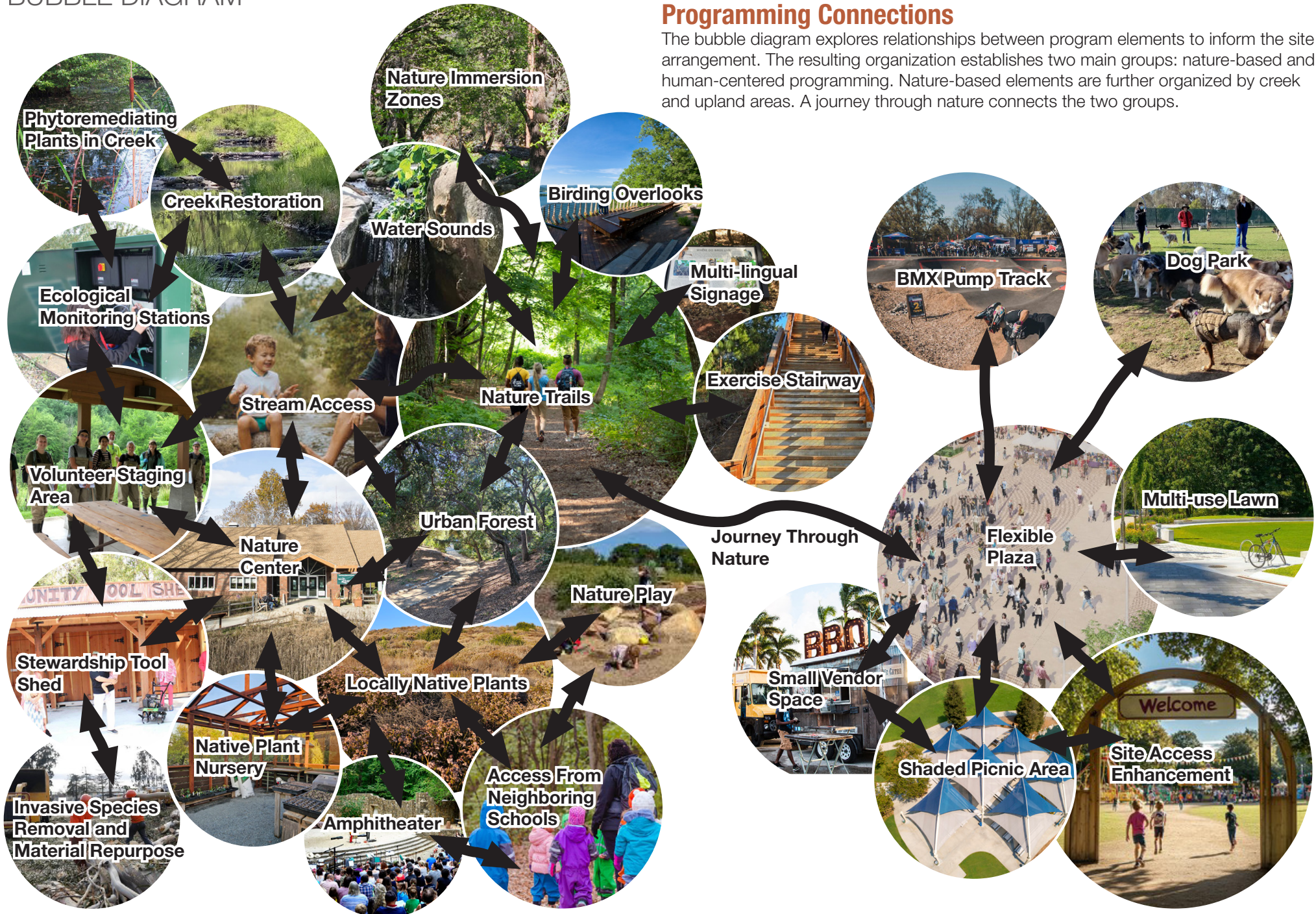
7. Integrate Recreation, Stewardship and Ecology

Blends ecological restoration with human recreation, education, stewardship and physical access. Design the restored creek and native plant communities to simultaneously serve as wildlife habitat, trail corridors, and sensory learning environments. Invite direct community investment in the landscape to shift the public mindset from passive park consumers to active environmental caretakers. Embed dedicated spaces for volunteer habitat restoration, citizen science tracking, native planting workshops, and local school district partnerships.



CONCEPTUAL DIAGRAM

BUBBLE DIAGRAM



SITE-SPECIFIC FUNCTIONAL DIAGRAMS

GOAL-ORIENTED LAYOUT DEVELOPMENT

RESTORE



RIPARIAN HABITAT

Constraints

Steep slopes
Channelized banks
Difficult to plant
High flow events

Opportunities

Spaces for wildlife to inhabit and use as corridor
Create places where humans can visit while protecting ecosystem
Improve stream health
Spaces for stewardship



UPLAND HABITAT

Constraints

Landfill conditions in some areas
Surrounded by urban areas

Opportunities

Spaces for wildlife to inhabit and use as corridor
Create places where humans can visit while protecting ecosystem
Create healthy habitat
Improve climate and air quality
Space for stewardship



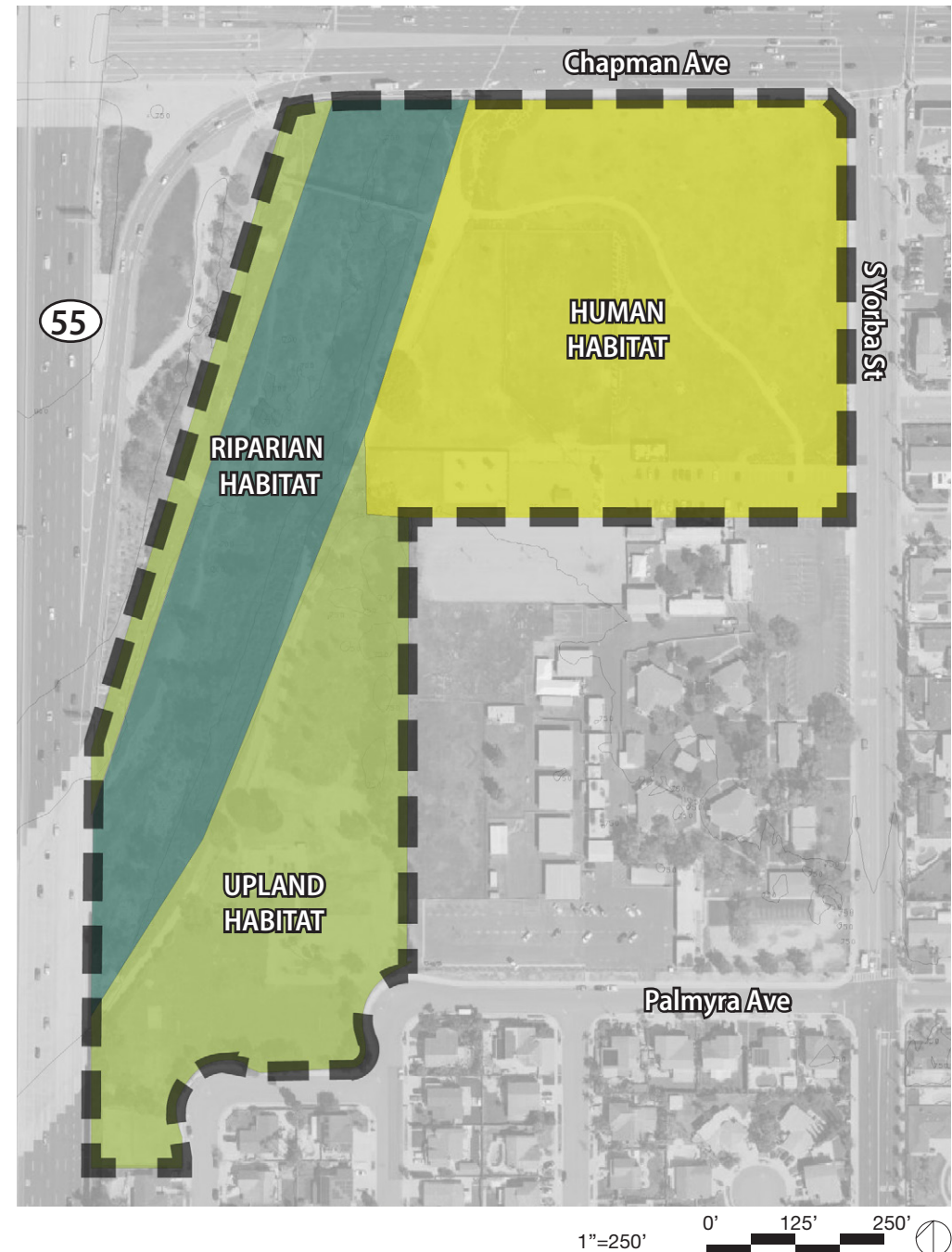
HUMAN HABITAT

Constraints

Landfill Conditions
Existing facilities
Flat surface
Difficult to plant large shade trees
Difficult to build structures

Opportunities

Spaces for humans to be active
Spaces for humans to socialize
Accessible surfaces
Places to gather
Places to respond to community needs



SITE-SPECIFIC FUNCTIONAL DIAGRAMS

GOAL-ORIENTED LAYOUT DEVELOPMENT

ENGAGE

EXERCISE CONNECTION

Constraints

Near roads
High solar exposure
Restrictions on watering turf
Shifting soil condition

Opportunities

Activities that embrace shifting soil conditions
Use steep slopes for exercise stairways
Large space for water efficient flexible turf exercise space

NATURE CONNECTION

Constraints

Noise from freeway and cars
Restrictions on planting and water infiltration based on landfill cap
Areas for unhoused
Stabilized slope banks

Opportunities

Spaces for stewardship and monitoring
Interactive nature education areas
Connect people to water
Connect people to wildlife
Nature play areas
School yard connection
Nature center

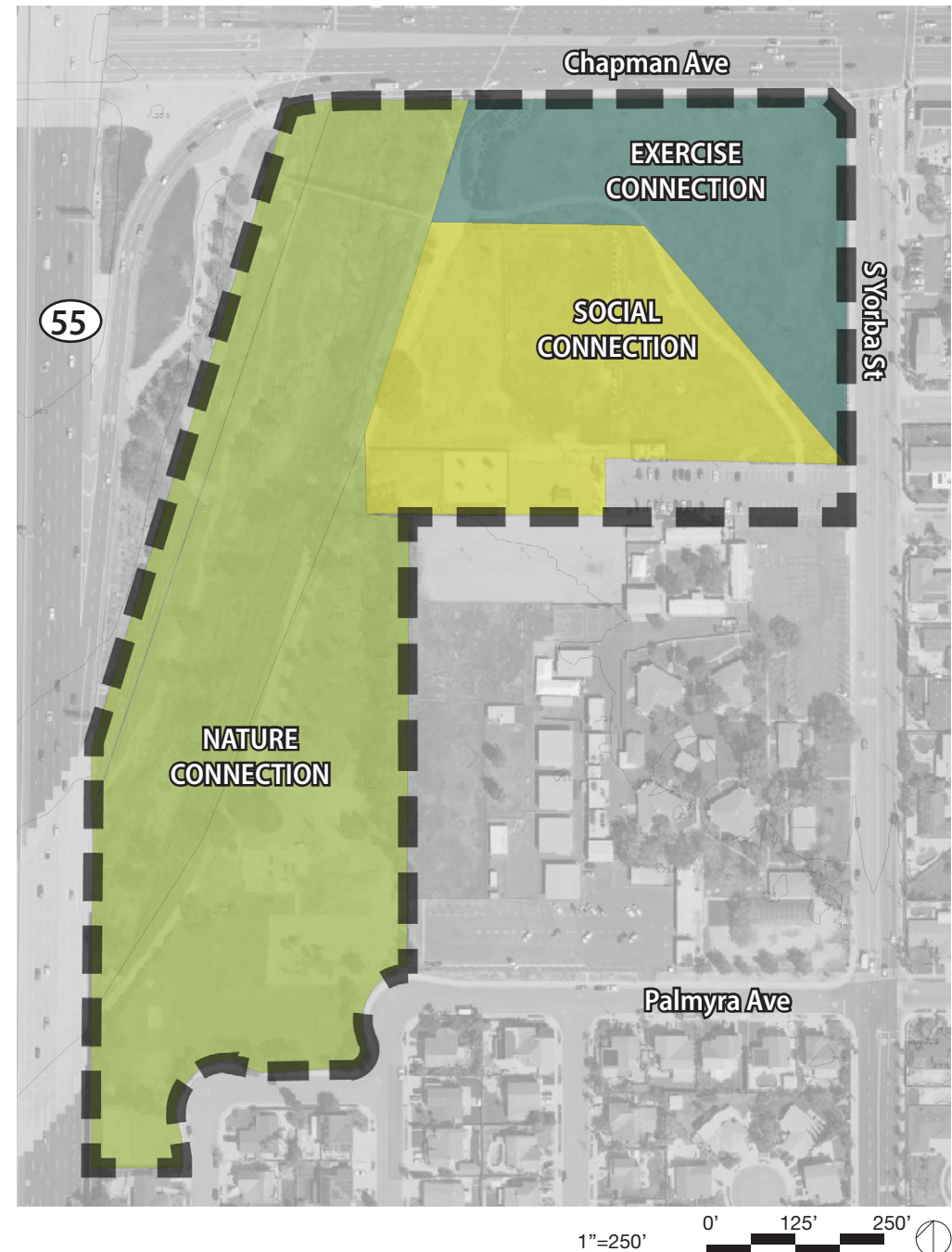
SOCIAL CONNECTION

Constraints

Landfill Conditions
Existing facilities
Flat surface
Difficult to plant large shade trees
Difficult to build structures

Opportunities

Spaces for humans to be social
Shade zones
Amphitheater
Picnic areas
Flexible plaza



SITE-SPECIFIC FUNCTIONAL DIAGRAMS

GOAL-ORIENTED LAYOUT DEVELOPMENT

THRIVE

EQUITABLE ACCESS

Constraints

Fixed entry points defined by freeway, roads, stream and school

Opportunities

Create entry from school
Create inviting entry from bike trail
Create inviting entry from bus stop and pedestrian access points

EQUITABLE SPACE

Constraints

Steep slopes at creek
Existing facilities
Loud freeway noise
Landfill conditions

Opportunities

Areas with natural elements
Areas with water sounds
Walking paths in natural areas
Outdoor classrooms
Multi-lingual signage
Create all ages activities
Host free education workshops through education center
Respond to local community groups needs
Respond to under-served community needs
Retain dog park
Revive BMX track
Create spaces for small vendors
Host community gathering events



CALIFORNIA SCRUB JAY

It was noted in an arborist survey that there were coast live oak trees that looked intentionally planted. One species that is known for such activity is the California scrub jay. This connection as well as the shape of the site inspires the concept of a California scrub jay.

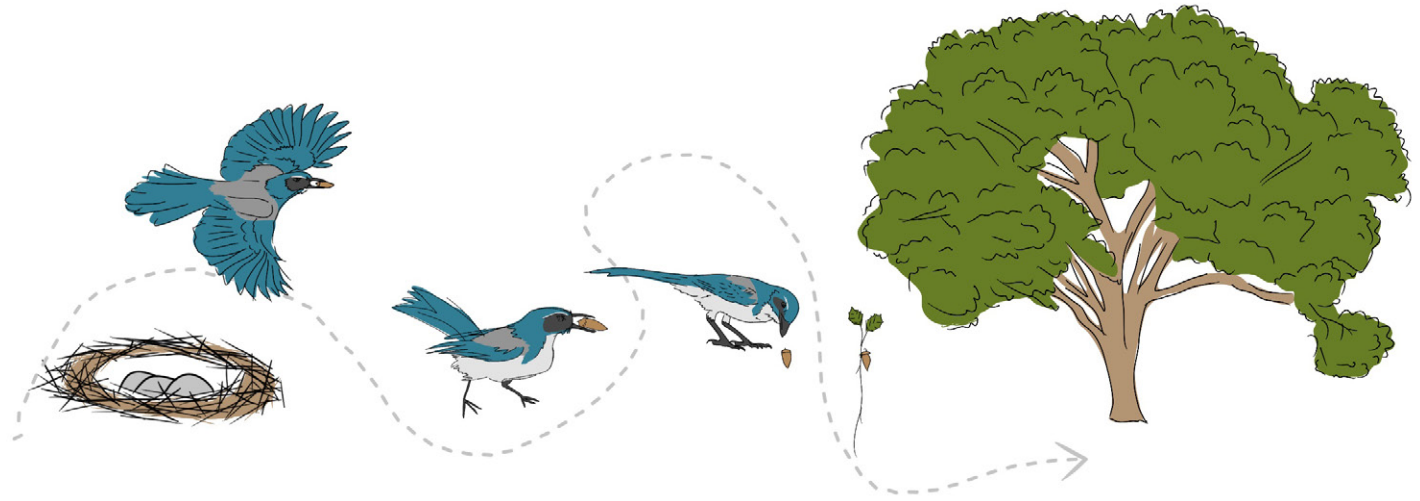


SCRUB JAY ECOLOGY

California Scrub Jays are essential ecosystem engineers of our local landscapes with their reforestation integrated into their lifecycle. Though acorn caching behavior, they plant in the soil coast live oak trees as a byproduct. Coast live oak trees are a keystone species that support hundreds of local species.

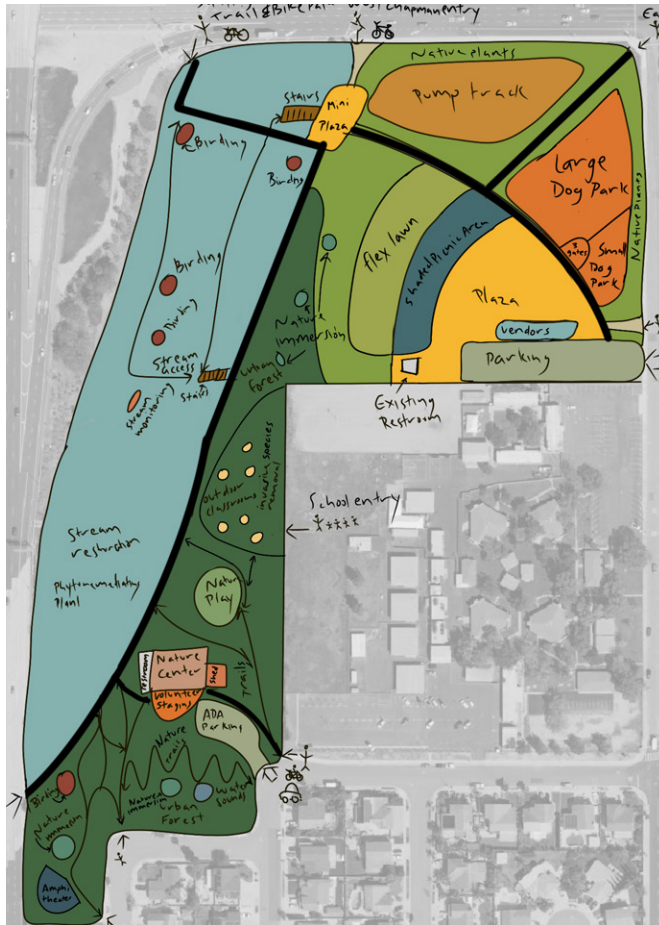
GROWING LIFE-LONG STEWARDS

Inspired by how we can integrate stewardship into our own lives like the California scrub jay, this park provides a space to promote the growth of life-long stewards of our local ecosystem, public space, and Santiago Creek. The design promotes healthy growth, learning and stewardship for all stages of life, providing connection and equitable access to a cherished nature-based public park.



DESIGN CONCEPTS

THREE DESIGN CONCEPT ALTERNATIVES

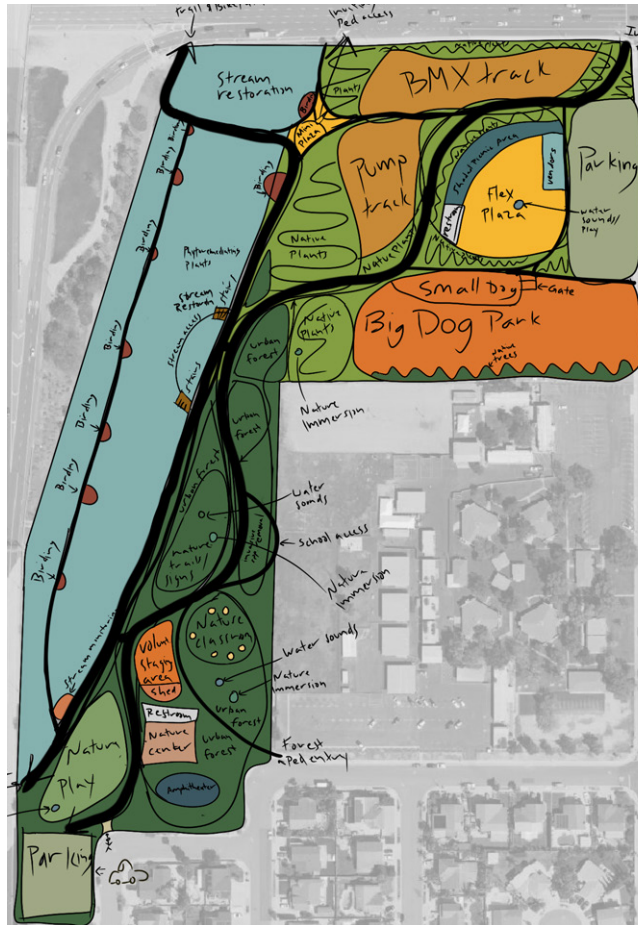


WINGSPAN

Active programming elements at the farther extents of the site, like the movement of a wingtip.

Pro: Supports humans coexisting with wildlife.

Con: Not enough structure for full site design.

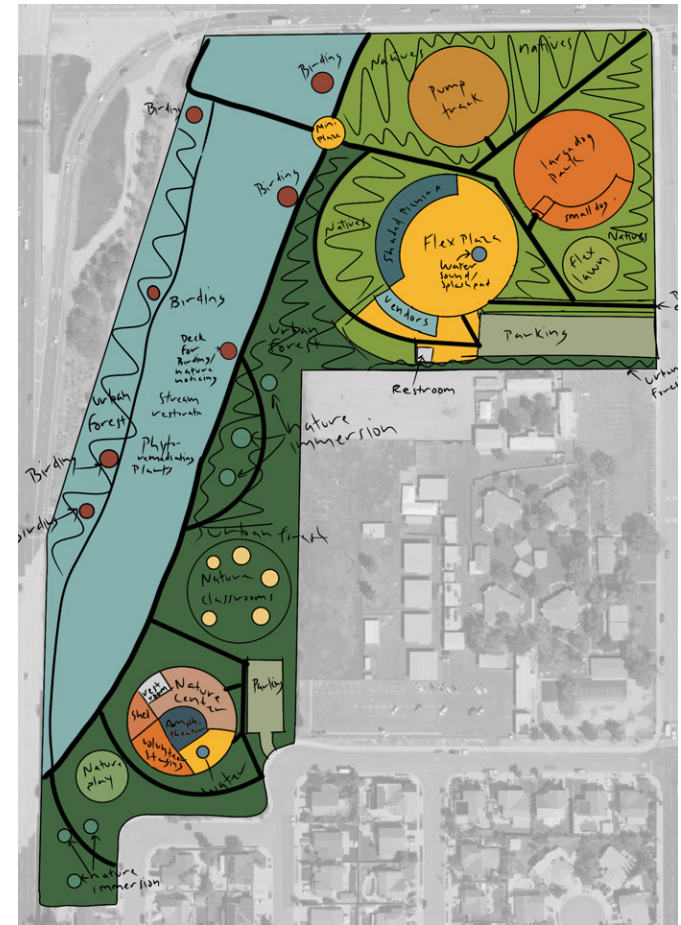


FLIGHTPATH

Undulating and rhythmic patterns to activate the site from end to end inspired by their flight pattern.

Pro: Fits the site and provides structure for programming.

Con: does not define programming spaces.



LIFECYCLE

Circular patterns create forest clearings inspired by their seasonal lifecycle.

Pro: Arranges programming elements and ties theme to the urban forest and habitat restoration.

Con: Doesn't provide enough structure to fill site.



DESIGN CONCEPTS

INTEGRATED CONCEPTS

CREEK ZONE

Creek Access

Exercise Stairs

Urban Forest

Creek Restoration

Phytoremediating Plants

Birding Zone

STEWARDSHIP ZONE

Birding Overlook

Nature Trails

Nature Noticing Zone

Multi-lingual Signage / Shade Kiosk

Nature School / School Access

Native Plant Nursery

Shaded Volunteer Staging Area

Stewardship Tool Shed

Bike Parking

Nature Center

Amphitheater and Water Sounds

Nature Play

Native Tree and Shrub Mounds

Parking

FLIGHT ZONE

Pump Track

Site Entrance Enhancement

Native Sedge Lawn

Shaded Picnic Area

Flex Plaza w/ Small Vendor Space

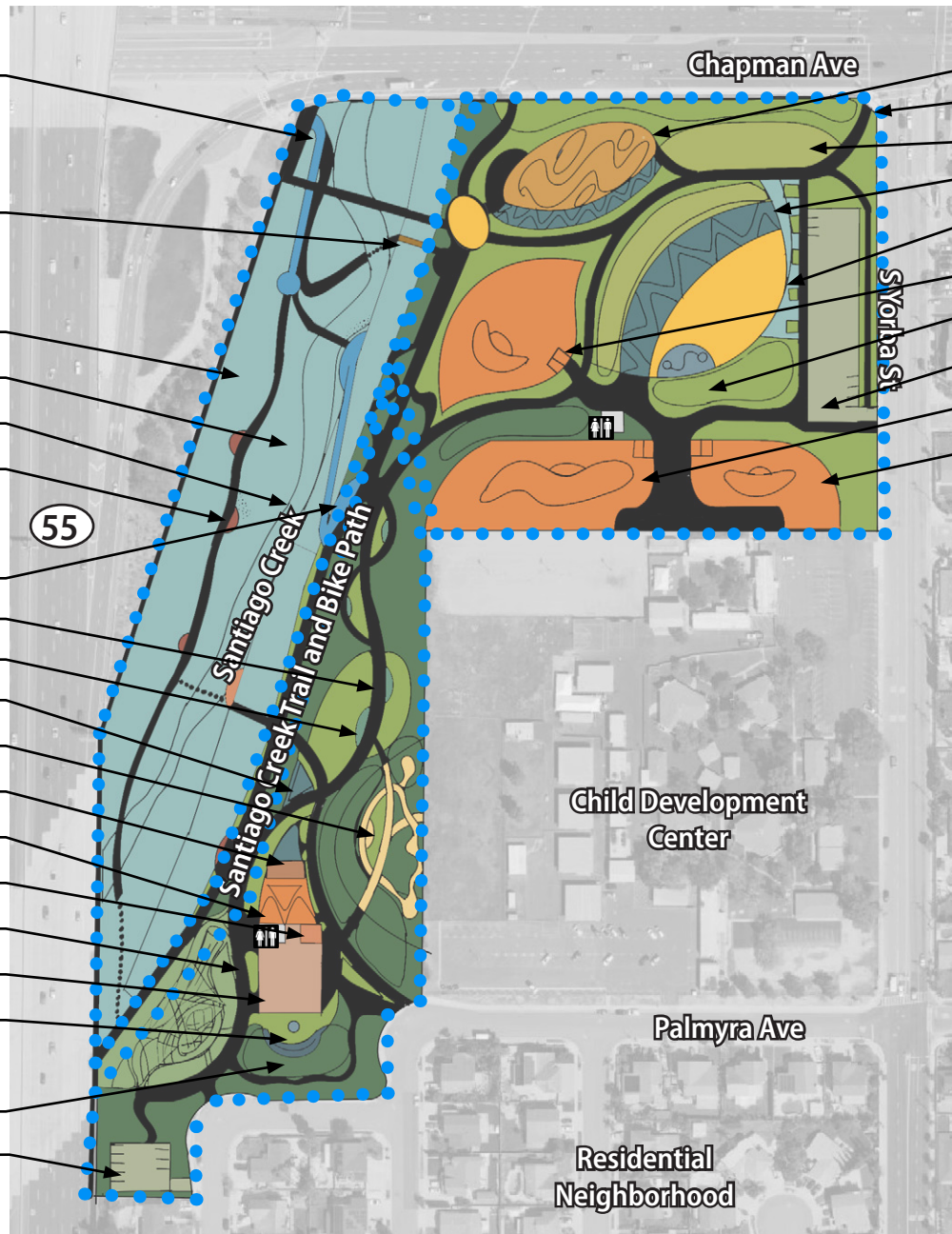
Large Dog Park 1

Splash Pad and Water Sounds

Parking

Large Dog Park 2

Small Dog Park



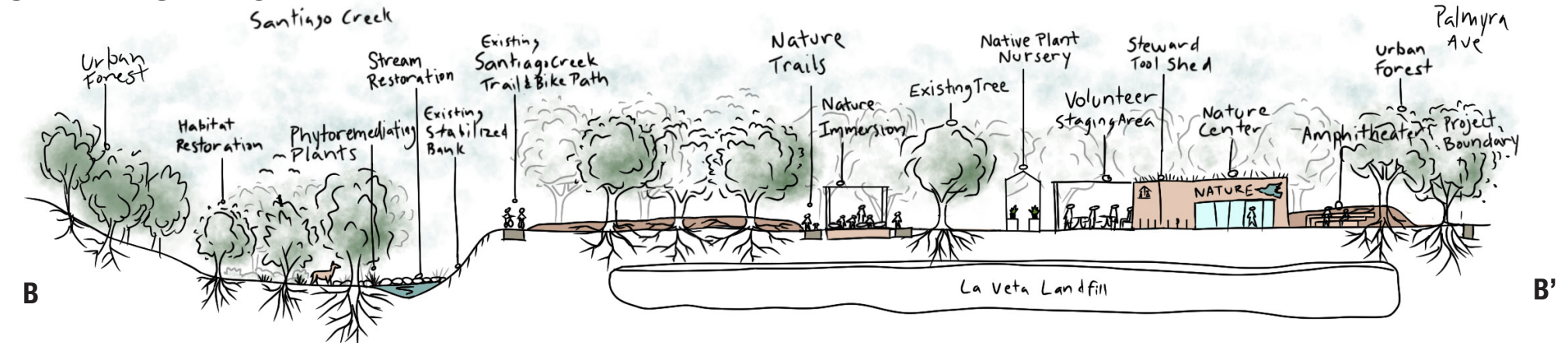
DESIGN CONCEPTS

INTEGRATED CONCEPTS

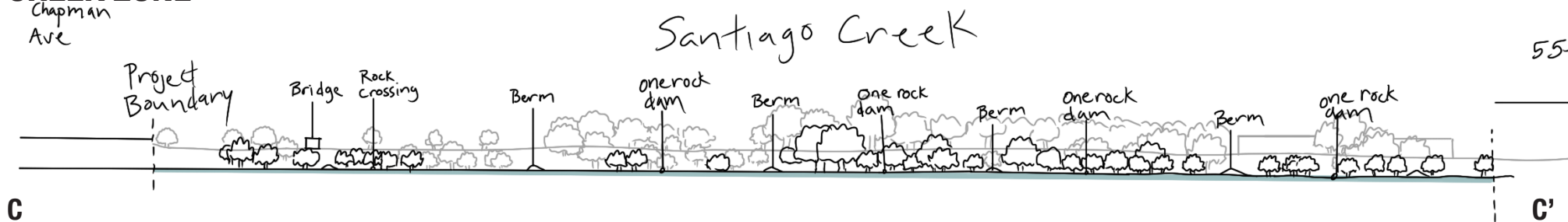
FLIGHT ZONE



STEWARDSHIP ZONE



CREEK ZONE



SITE DESIGN

SITE PLAN

SCRUB JAY PARK

CREEK ZONE

FLIGHT ZONE

STEWARDSHIP ZONE



PLANT PALETTE

NATIVE PLANT COMMUNITIES

RIPARIAN WOODLAND

Fremont Cottonwood (*Populus fremontii*)
 Western sycamore (*Platanus racemosa*)
 Arroyo Willow (*Salix lasiolepis*)
 Mule fat (*Baccharis salicifoli*)
 Olney's Bulrush (*Schoenoplectis americanus*)
 Mugwort (*Artemisia douglasiana*)
 Scarlet monkeyflower (*Mimulus cardinalis*)
 Humboldt lily (*Lilium humboldtii*)



GRASSLAND

Foothill needlegrass (*Nassella lepida*)
 Purple needlegrass (*Nassella pulchra*)
 Giant needlegrass (*Stipa coronata*)
 Coast goldenfields (*Lasthenia californica*)
 California Poppy (*Eschscholzia californica*)
 Succulent Lupine (*Lupinus succulentus*)
 Purple Owl's Clover (*Castilleja exserta*)
 Splendid Mariposa Lily (*Calochortus splendens*)



COASTAL SAGE SCRUB

California sagebrush (*Artemisia californica*)
 California buckwheat (*Eriogonum fasciculatum*)
 Bush sunflower (*Encelia californica*)
 Black sage (*Salvia mellifera*)
 White sage (*Salvia apiana*)
 Bladderpod (*Peritoma arborea*)
 California croton (*Croton californicus*)
 Lemonade berry (*Rhus integrifolia*)



LIVE OAK WOODLAND

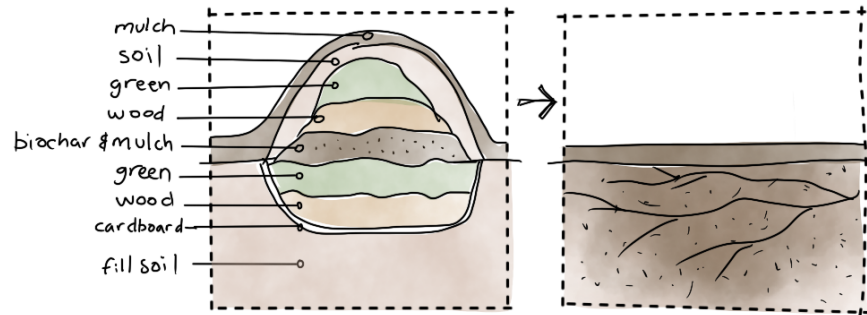
Coast live oak (*Quercus agrifolia*)
 Toyon (*Heteromeles arbutifolia*)
 Hollyleaf redberry (*Rhamnus ilicifolia*)
 California black walnut (*Juglans californica*)
 Mexican elderberry (*Sambucus mexicana*)
 Laurel sumac (*Malosma laurina*)
 Mountain mahogany (*Cercocarpus betuloides*)
 Hollyleaf cherry (*Prunus ilicifolia*)



PLANTING STRATEGY

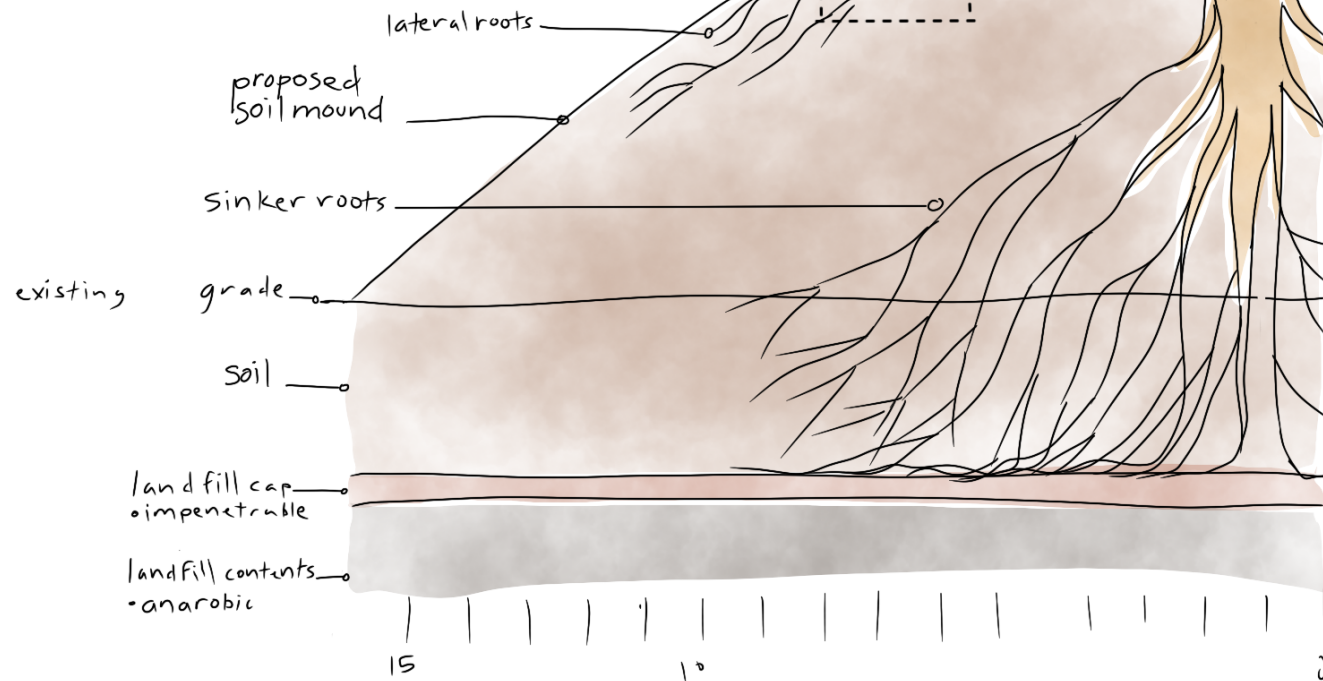
LANDFILL PLANTING MOUNDS

Micro-hügelkulture & Mulching on Mounds



At install
• low organic material
in fill soil

After decomposition
• living soil with
microbial and fungal
networks to support
thriving ecology



proposed tree
(mature)

Native
vegetation

lateral roots

proposed
soil mound

sinker roots

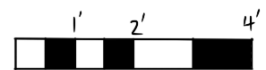
existing
grade

soil

land fill cap
• impenetrable

landfill contents
• anaerobic

1/2" = 1' - 0"



MATERIALS PALETTE

INSECT-FRIENDLY LIGHTS

Path and dog park lighting uses BUG-rated fixtures with U=0 and warm color temperatures. This allows safe park use after dark while minimizing light pollution, disruption to insect populations, and impacts on human circadian rhythms.



FLEX PLAZA PAVERS

Pavers accommodate minor ground movement associated with differential settlement and allow for localized repair or replacement. Their flexibility makes them suitable for the large flex plaza.



CENTRAL SOLAR SHADE STAGE

A large shade structure provides a flexible stage for events while supporting integrated solar panels. The solar array generates energy to power park lighting and other site amenities.



EDUCATION EXHIBITS

The Nature Center serves as the hub for educational exhibits, with multilingual signage found in shaded plazas and along paths. These exhibits provide opportunities to learn about the site's local ecology and history.



URBANITE RETAINING WALL

Repurposes pavement from site to reduce material waste and embodied carbon. Used to construct retaining walls for mounds and seat walls, including within the nature play area.



BIKE RACKS

Encourage active and sustainable transportation while providing convenient access to park programming for local families without access to a car.



GABION RETAINING WALL

Uses rocks and urbanite chunks to create decorative retaining walls that provide structure to mounds along paths and near the flex plaza.



ARTICULATING CONCRETE BLOCKS

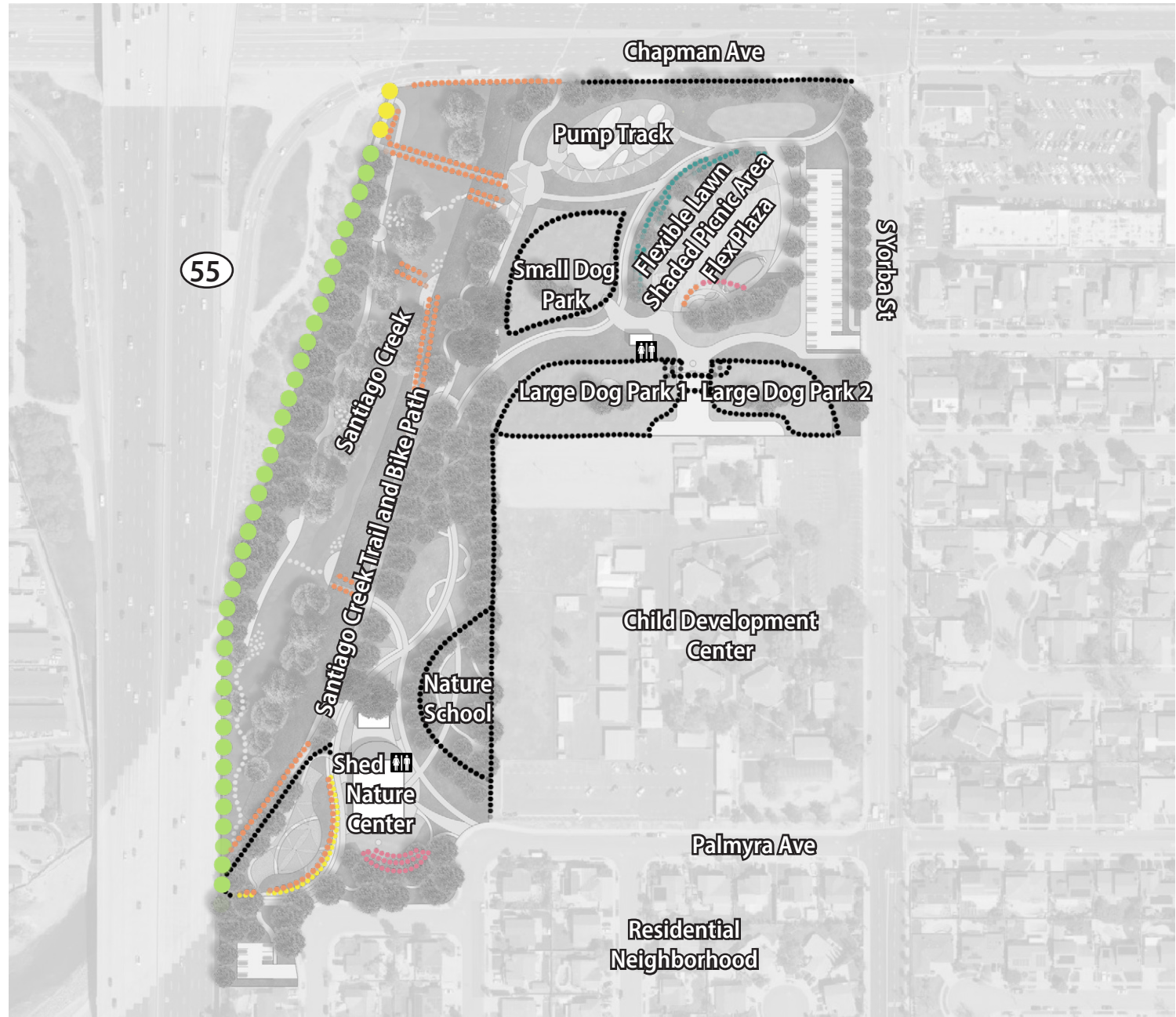
Stabilize severely eroded creek banks while allowing coastal sage scrub plants to establish between the linked blocks, providing additional slope stabilization and habitat.



VERTICAL ELEMENTS

WALLS AND FENCES

- ● ● Sound Wall
- ● ● Retaining Wall
- ● ● Handrail
- ● ● Fence
- ● ● Seat/Retaining Wall
- ● ● Short Retaining Wall



1"=250' 0' 125' 250'

CIRCULATION

- ● ● Vehicular Circulation
- ○ ○ Pedestrian Circulation
- ● ● Bicycle Circulation
- ● ● Wildlife Corridor
- ● ● Wildlife Habitat



DESIGN DETAILS

FLIGHT ZONE

PUMP TRACK

A large pump track activates the space and provides recreation for bike and skate enthusiasts of all experience levels. The track expands access to active recreation, responds to local efforts to bring BMX tracks back to Orange County, and pays tribute to the former Orange Y BMX Track.

DOG PARKS

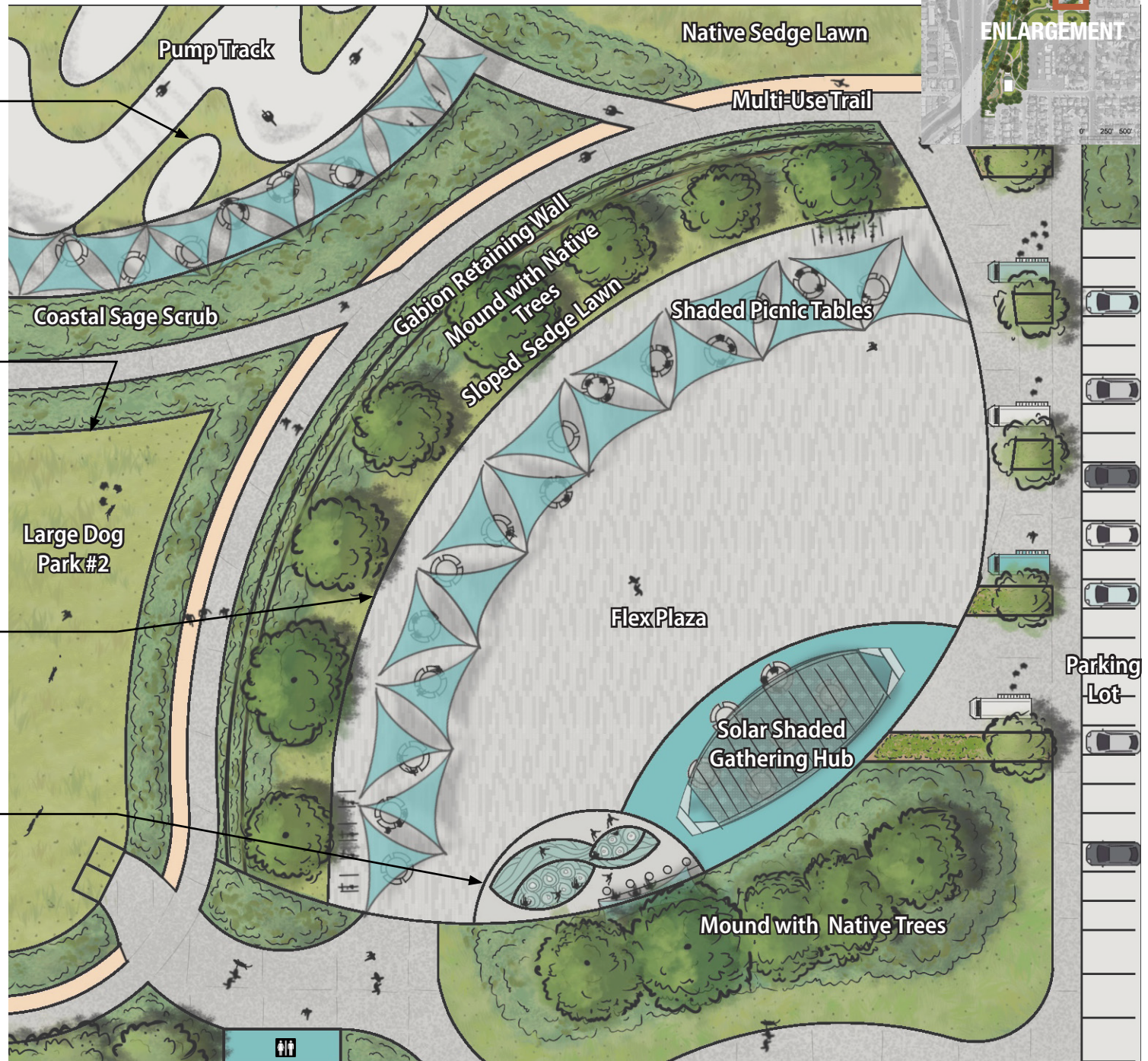
Responds to the Orange Dog Park Association's need for two large and one small dog park at this location. Improvements enhance the experience for dogs and their owners through shaded plazas, lighting, and visual buffers that reduce fence aggression.

FLEX PLAZA

A dynamic, shaded space supporting large events, daily picnicking, small vendors, weekly farmers markets, and families using the splash pad.

SPLASH PAD

Provides accessible water play for local families during hot days. When not in use, the recirculating water feature creates ambient water sounds and cooling, with prevailing winds carrying cooled air into the adjacent flex plaza.



FLIGHT ZONE

Mounds define the space as an outdoor room, with a sloped native sedge lawn providing additional usable space and shade. Improved dog parks incorporate lighting, mounds, and gathering plazas, while planted buffers separate dogs from adjacent trails and provide additional habitat.



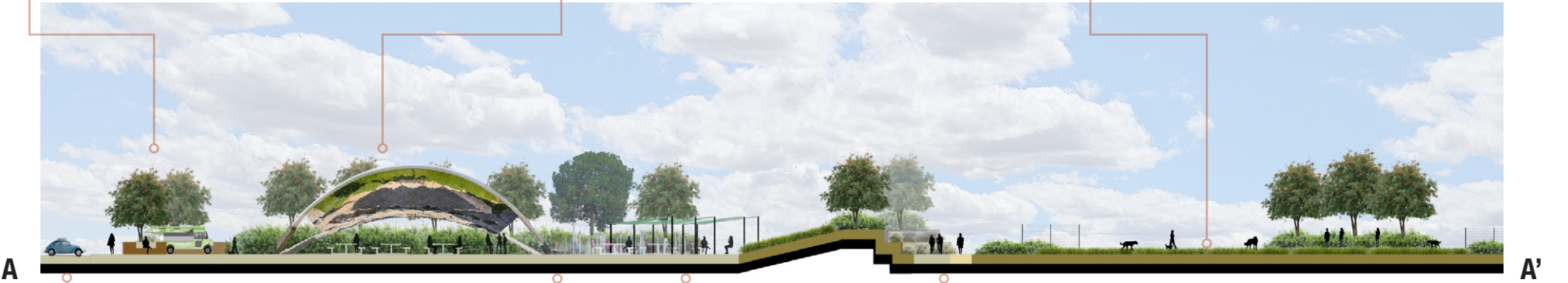
SMALL VENDOR SPACE



FLEX PLAZA



DOG PARKS



PARKING LOT

SPLASH PAD



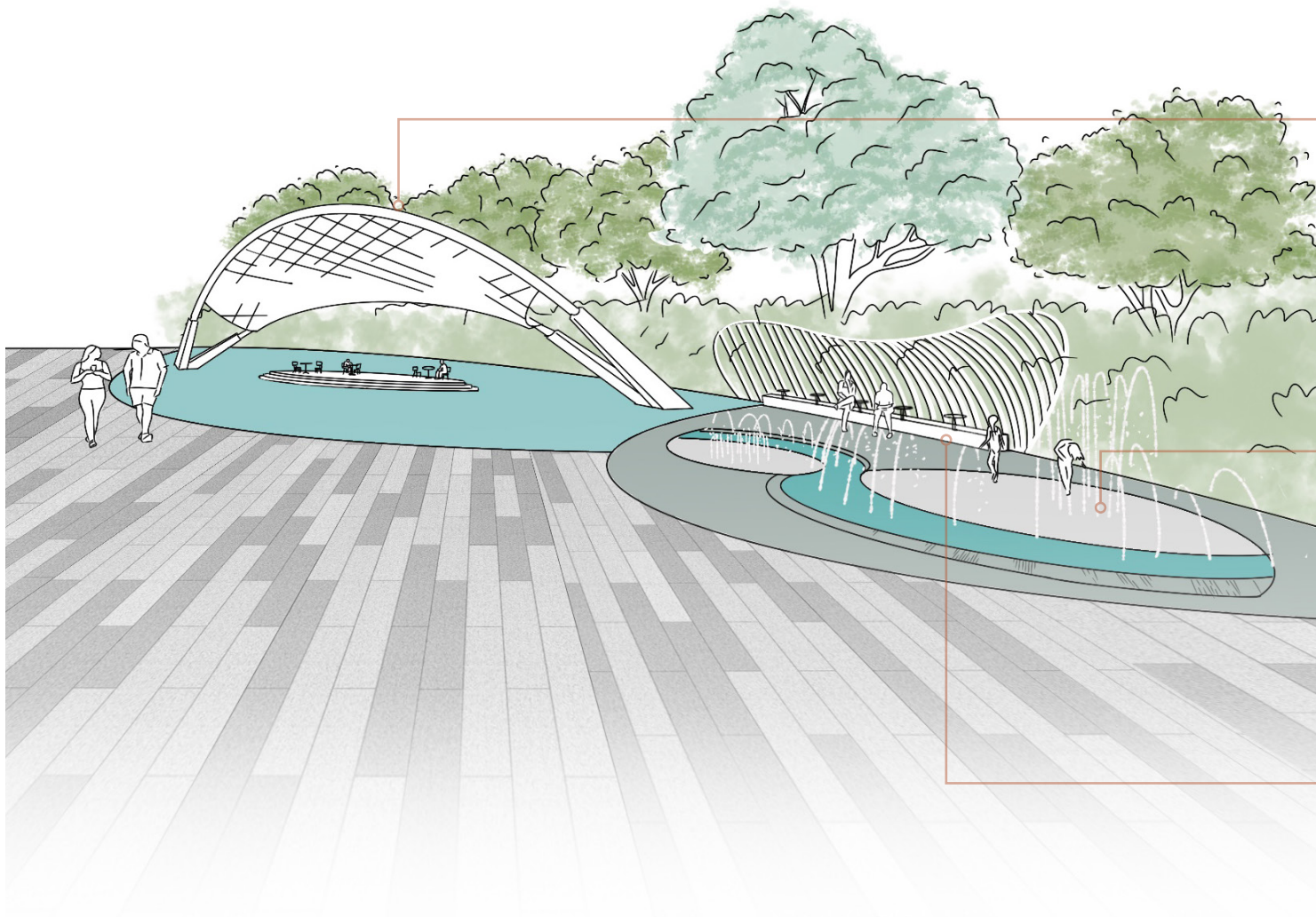
SHADED PICNIC AREA



TRAILS



FLIGHT ZONE



GATHERING HUB



SPLASH PAD



SHADED SEATING



STEWARDSHIP ZONE

NATURE LEARNING

A flexible nature-immersion space for neighboring school students to visit as a class through a dedicated school gate. Perimeter fencing, outdoor nature classrooms, and accessible learning spaces support students of all ages. A surrounding mound enhances nature immersion, while a gate provides access to the Nature Center for additional learning opportunities.

NATURE CENTER

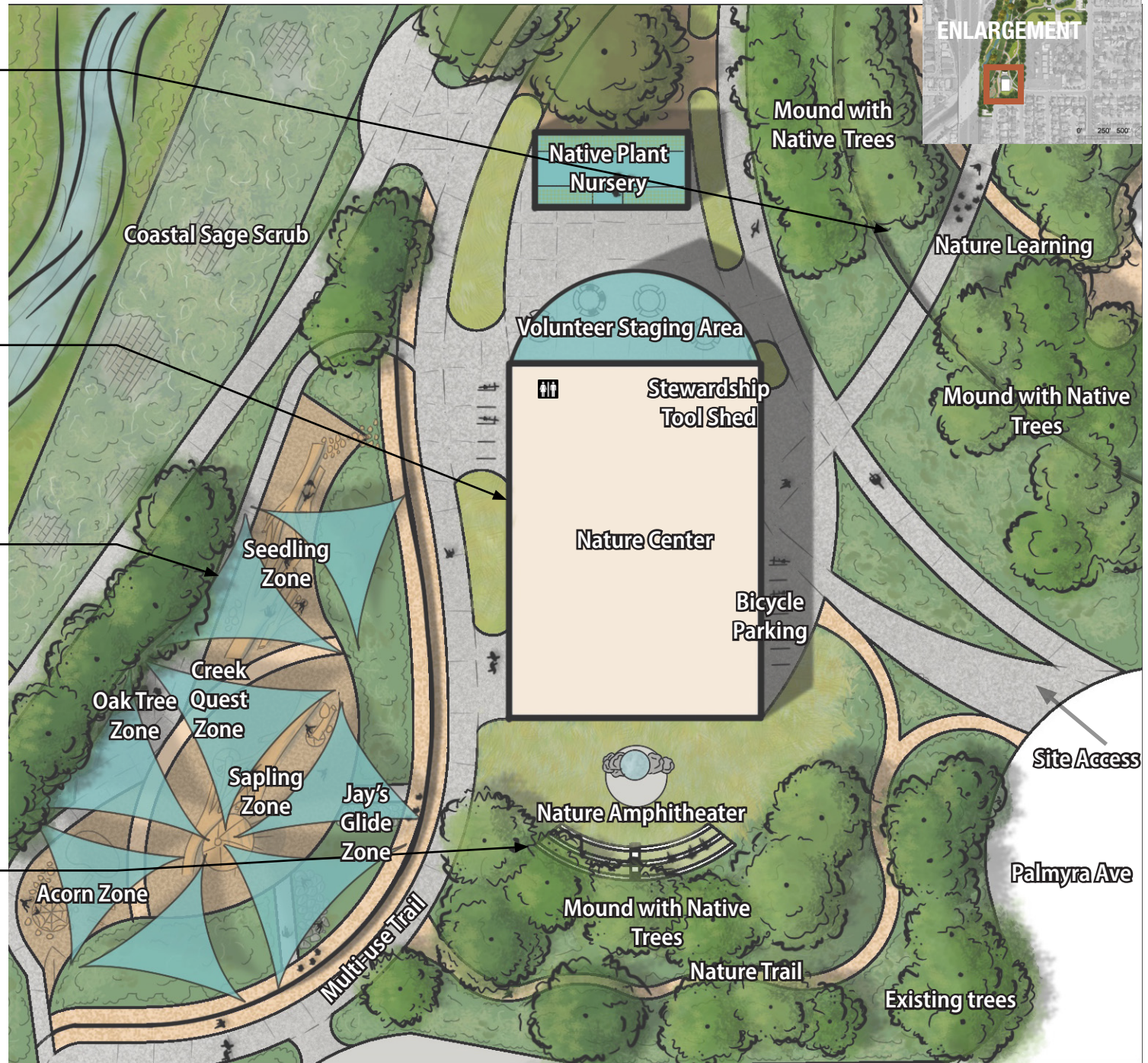
A hub for the stewardship zone supporting local organizations such as the Santiago Creek Greenway Alliance. The center provides space for education, outreach, volunteer activities, stewardship tool rental, and a native plant nursery.

NATURE PLAY

Shaped like a California Scrub-Jay, the nature-based playground uses natural elements to encourage curiosity, exploration, and risk assessment. Multiple play zones offer varying levels of challenge for different ages and abilities, incorporating slides, climbing elements, and an interactive stream model that introduces creek restoration concepts. A central seating area provides parent visibility, while perimeter fencing supports safety and nature immersion.

NATURE AMPHITHEATER

An amphitheater integrated into the side of a berm with minimal built elements. The space faces a recirculating water feature that creates ambient water sounds reflected toward the Nature Center. Trails along the back of the berm meander through existing and newly planted trees.



STEWARDSHIP ZONE

The Stewardship Zone integrates nature trails, urban forest, nature learning, nature play, and the Nature Center to create a cohesive environment for exploration, education, and community stewardship. Mounds add vertical interest and define spaces for play while enhancing nature immersion and creating varied experiences for children.



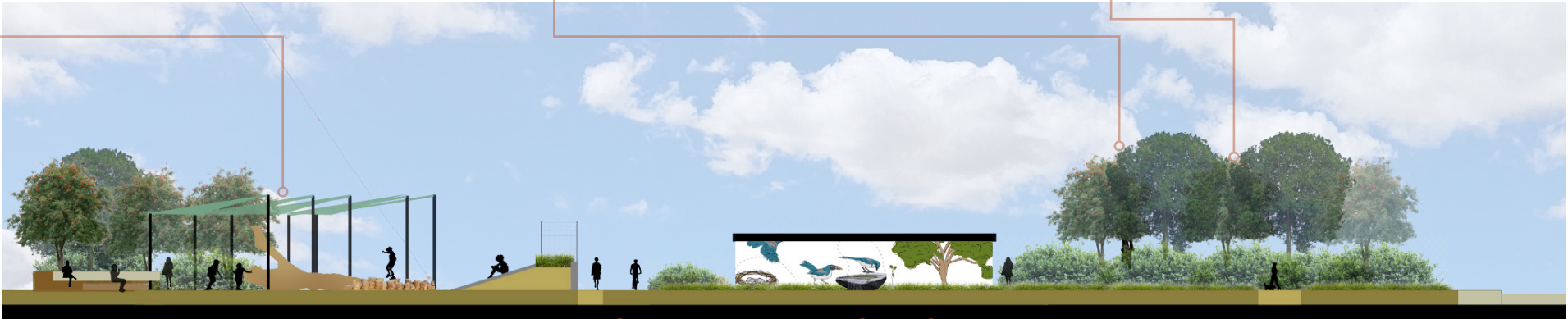
NATURE PLAY



URBAN FOREST



NATURE LEARNING



B

B'

NATURE TRAILS



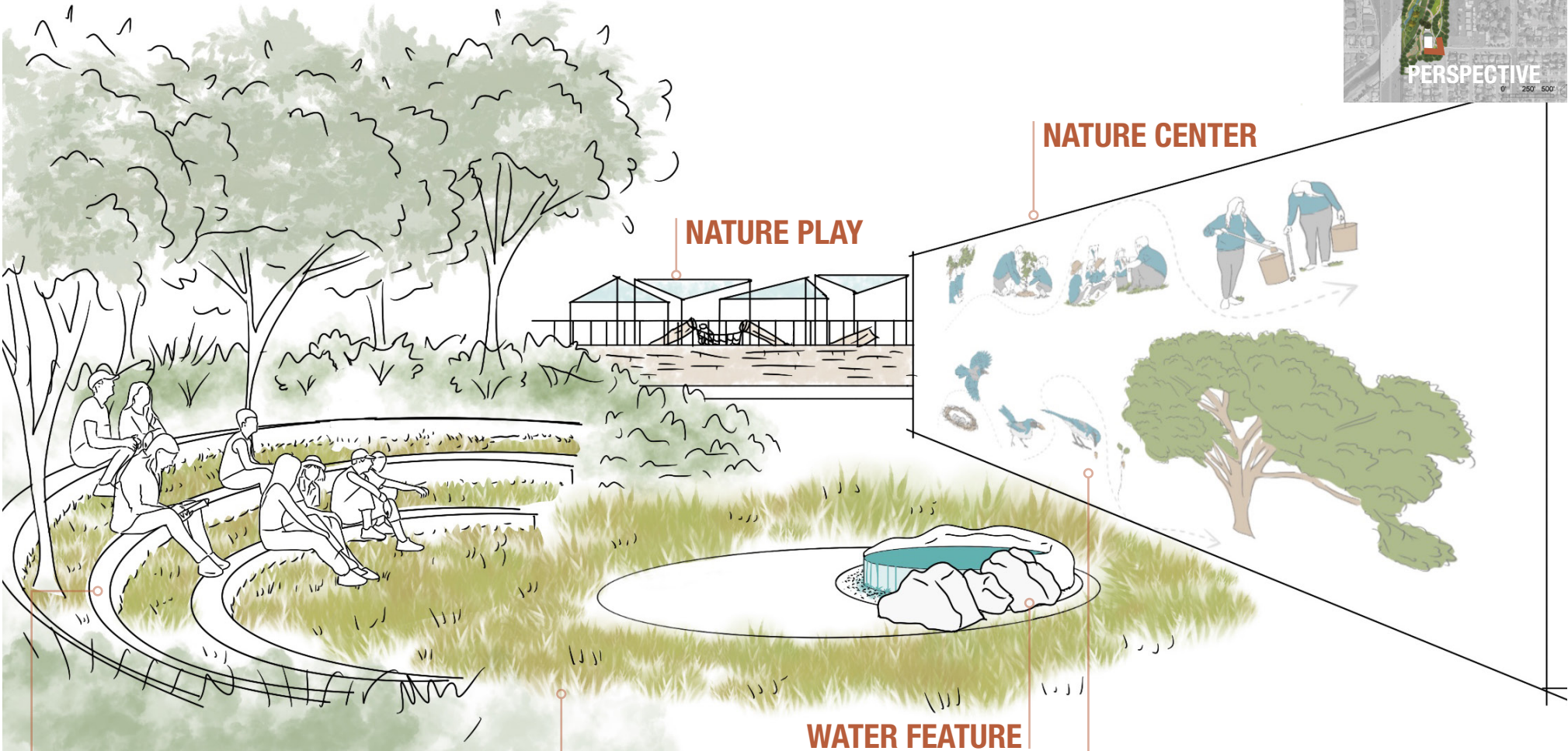
WATER FEATURE



NATURE CENTER



STEWARDSHIP ZONE



AMPHITHEATER



NATIVE SEDGE

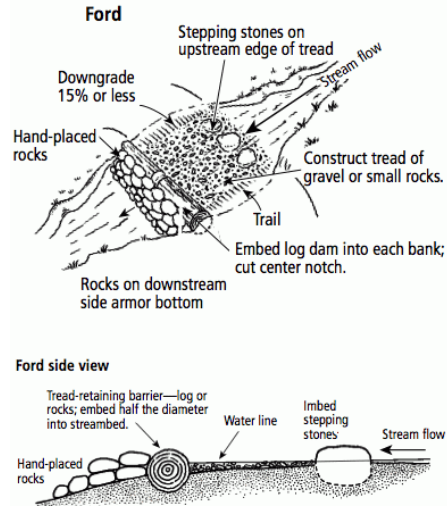


EDUCATIONAL MURAL



CREEK ZONE

RESTORATION



ONE ROCK DAMS

A series of one-rock dams uses large rocks and logs to slow and spread flow, encourage sediment deposition, encourage water infiltration, and create diverse aquatic habitat. Select areas incorporate phytoremediating plants, while others provide stream crossings to improve access.

STABILIZED BANK

Bank stabilization addresses severe erosion along the northern section of the site. Articulating concrete blocks provide bank support while allowing stabilizing plants, such as *Eriogonum fasciculatum*, to establish and reinforce the bank through their root systems. This area is primarily within U.S. Army Corps of Engineers jurisdiction.

INDUCED MEANDER

A series of rock and log deflectors redirects flow to encourage meandering, pooling, and braided channel patterns. These varied flow conditions create more diverse aquatic habitat, while phytoremediating plants support improved water quality and habitat conditions.



1"=40'

0' 20' 40'

CREEK ZONE

RESTORATION

The section illustrates the integration of habitat and creek restoration, with stabilized banks and oak woodland on the upper slopes, phytoremediating plants within the creek, and a widened channel that supports diverse riparian habitat along the waterway.



RIPARIAN WILDLIFE



INSTALL NATIVE PLANTS



OAK WOODLAND



PHYTOREMEDIATING NATIVE PLANTS



ONE ROCK DAM



RIPARIAN BIRD HABITAT



CREEK ZONE

ACCESS

ACCESS RAMPS

Concrete ramps on both sides of the creek provide ADA access for people to enter and cross the creek. The ramps also serve as visual cues inviting people into the creek.

ACCESS STAIRS

The staircase follows the slope of the stabilized bank, providing multiple access points to the creek and doubling as a fitness route for enthusiasts.

STEPPING STONES

A line of rocks embedded in the creek bed creates a safe crossing path. This is paired with a one-rock dam to help reduce erosion around the footings.

ACCESS PLAZA

A shaded space for creek cleanup volunteers, birders, and visitors seeking respite. Its visibility also provides an opportunity for creek outreach, education, and volunteer recruitment.

BRIDGE CROSSING

This removable bridge is installed when creek access is safe and removed during high flows. Upstream reservoir controls provide advance warning when removal is necessary.

CREEK-SIDE PLAZA

This concrete pad provides space to gather at the edge of Santiago Creek. Welcoming visitors to the creek activates the space and supports CPTED principles. It also serves as one of several birding zones along the creek.



CREEK ZONE

ACCESS

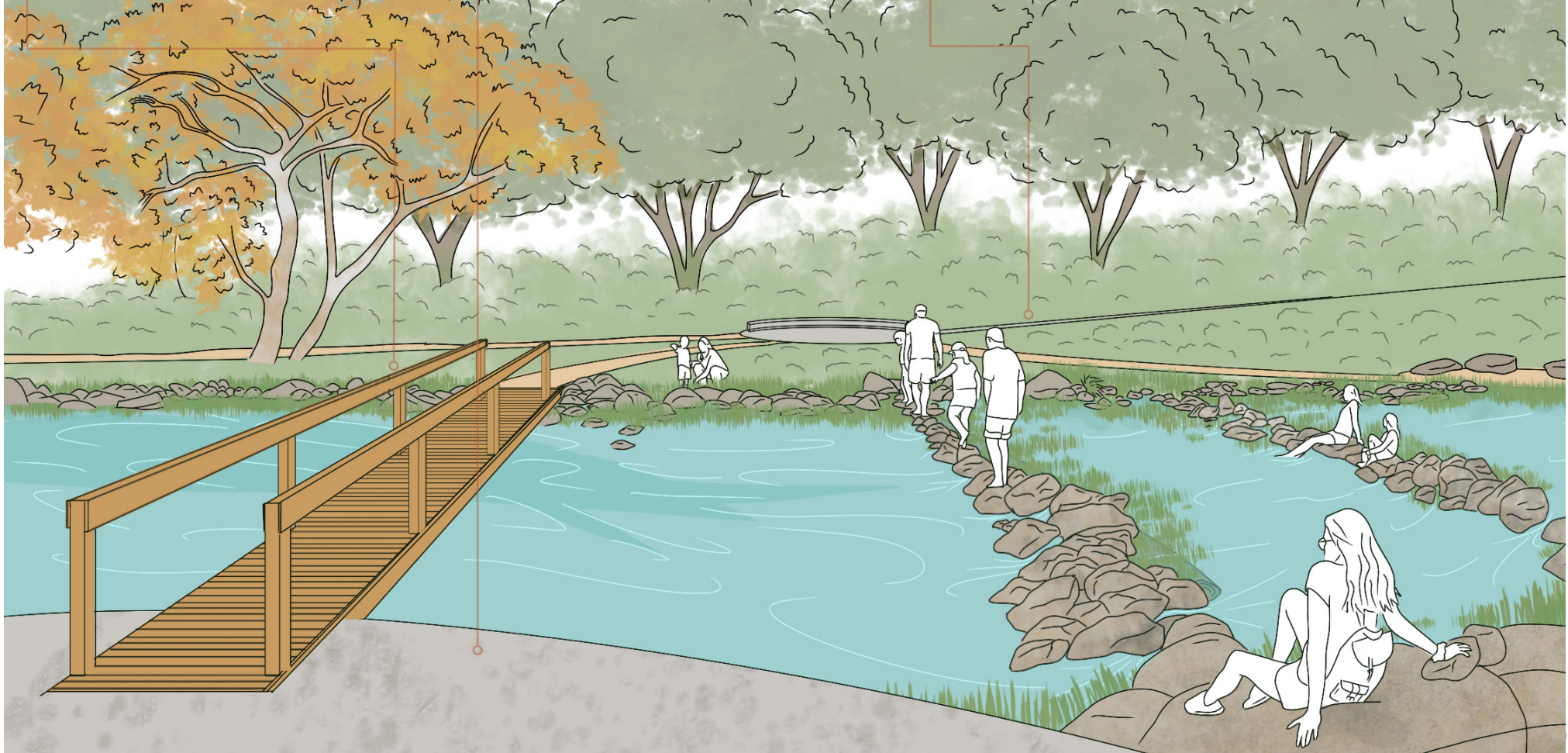
BRIDGE CROSSING



CREEK ACCESS PLAZA



ACCESS RAMP



CONCLUSION

CONCLUSION

SCRUB JAY PARK

RESTORE

Restore Ecosystem and Creek Health

Revitalize the former landfill and Santiago Creek as a thriving ecosystem

Improve local climate, water and air quality

Facilitate ongoing community stewardship

- Urban Forest
- Creek Restoration
- Phytoremediating Plants
- Creek Access
- Locally Native Plants
- Native Plant Nursery
- Shaded Volunteer Staging Area
- Stewardship Tool Shed
- Native Tree and Shrub Mounds



These elements restore ecosystem and creek health while adding 11 acres of habitat and creek restoration.

CONCLUSION

SCRUB JAY PARK

ENGAGE

Strengthen Community Well-being Through Nature and Activity

Facilitate people connecting with nature

Unite people in multi-purpose gathering spaces

Create spaces for physical activity

Exercise Stairs

Birding Zone

Nature Center

Amphitheater and Water Sounds

Nature Play

Chapman Ave

Pump Track

Multi-use Lawn

Shaded Picnic Area

Flex Plaza w/ Small Vendor Space

Splash Pad and Water Sounds

S Yorba St

Child Development Center

Palmyra Ave

Residential Neighborhood

Santiago Creek Trail and Bike Path

Santiago Creek

1"=250'

0' 125' 250'

The design strengthens community wellbeing through nature and activity, integrating 18 nature-based and 11 activity-focused elements throughout the park.

CONCLUSION

SCRUB JAY PARK

THRIVE

Expand Equitable Access to Recreation

Provide safe, inclusive, and accessible recreation for youth and under-resourced populations

Respond to local community needs

Provide a healthy environment for nervous system regulation



These elements expand equitable access to recreation through an ADA-accessible creek ramp, 8 creek-based elements, ½ mile of shaded trails, and 25 shaded gathering spaces.

CONCLUSION

SCRUB JAY PARK

RESTORE

ENGAGE

THRIVE

CREEK ZONE

- Creek Access
- Exercise Stairs
- Urban Forest
- Creek Restoration
- Phytoremediating Plants
- Birding Zone

STEWARDSHIP ZONE

- Birding Overlook
- Nature Trails
- Nature Noticing Zone
- Multi-lingual Signage / Shade Kiosk
- Nature School / School Access
- Native Plant Nursery
- Shaded Volunteer Staging Area
- Stewardship Tool Shed
- Bike Parking
- Nature Center
- Amphitheater and Water Sounds
- Nature Play
- Native Tree and Shrub Mounds
- Parking

FLIGHT ZONE

- Pump Track
- Site Entrance Enhancement
- Native Sedge Lawn
- Shaded Picnic Area
- Flex Plaza w/ Small Vendor Space
- Large Dog Park 1
- Splash Pad and Water Sounds
- Parking
- Large Dog Park 2
- Small Dog Park



Torie Stover
Capstone 2026
Landscape Architecture
UCLA Extension
Professor: Meg Rushing Coffee, Jim Pickel

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Image Sources

Project Location

Map base Google Earth

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Current Site Conditions

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Circulation

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Landfill Conditions

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Topography

"Topographic Map of Orange, CA" Map generated by Torie Stover; using TopoExport, topoexport.com
"Topographic Cross-Section of Yorba Park, Santiago Creek and 55 freeway" Diagram generated by Torie Stover using TopoExport, TopoExport.com

Tree Analysis

Map base Google Earth

Field Notes

Map base Google Earth

Constraints

Map base Google Earth

Opportunities

Map base Google Earth

Design Precedents

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Conceptual Development

All map bases in this section are by Google Earth

Design Metaphor

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Site Design

All map bases in this section are by Google Earth
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Image Sources (cont.)

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